RAJASTHAN

A SYMPOSIUM

DIRECTORATE OF PUBLIC RELATIONS.
GOVERNMENT OF RAJASTHAN.
JAIPUR.

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PREFACE

When on the 30th of March, 1949, the late Sardar Vallabh Bhai Patel, one of the makers and consolidators of Free India, inaugurated the State of Rajasthan, a curtain was drawn over a long act in some of the oldest and most glorious of Indian States and a new integrated State pulsating with renovated vigour came into being. It is well known that Rajasthan is the largest among the States of India and from the point of view of future development it is looked upon as a potential unit. Yet not much, apart from purple patches and highlights of its fascinating history, is known about Rajasthan beyond its frontiers. One major difficulty in obtaining sufficient data lay in the diversity of its systems of government before integration when political fragmentation precluded any possibility of co-relating material on a unified basis. With the coming together of the historic States the need for consolidated information on various aspects of life in the State is felt at all hands. The data available is still neither complete nor uptodate as systematic effort in this direction has only begun. An attempt has however been made in spite of severe limitations in the present symposium to bring together some of the information available on important subjects concerning Rajasthan in a handy form.

Some of the articles included here were written sometime ago but they have in no way lost in their intrinsic merit. They are therefore presented here in their original form and will we hope serve to stimulate further search and research about problems and possibilities of this youngest and most promising region whose progress and fortune is watched with keen interest by multitudes of people not only in India but also across distant lands.

We are sure it will fulfil a real need and serve a useful purpose. Each subject is covered by a person distinguished

in his own line. We hope to bring out another volume giving further information in due course. We are beholden to the writers for their co-operation and wish also to express our thanks to Shri C V. Veerraghavan, Assistant Director of Public Relations, for going through it.

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LAND OF LEGENDS

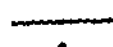
by Shri Anil Chandra Banarjee

"Rajasthan", says Tod, "is the collective and classical denomination of that portion of India which is the abode of (Rajput) princes. In the familiar dialect of these countries it is termed Rajwara, but by the more refined, 'Raethana', corrupted to Rajputana, the common designation amongst the British to denote the Rajput principalities". This land of hills and desert is also the classical land of legends—legends which, recorded in an alien tongue by an admiring British Officer, still inspire poetical and dramatic literature in far off Bengal.

Importance of the Rajputs

V. A. Smith points out that from the eighth century onwards the Rajputs played a conspicuous part in the history of Northern and Western India. He observes, "They became so prominent that the centuries from the death of Harsha to the Muhammadan conquest of Hindusthan, extending in round numbers from the middle of the seventh to the close of the twelfth century, might be called with propriety the 'Rajput period'. Nearly all the kingdoms were governed by families or clans which for ages past have been called collectively 'Rajputs'".

The importance of the Rajputs does not consist merely in their political domination for centuries. In an age of Muslim aggression they were the defenders of Hindu faith, the patrons of Hindu culture, the protagonists of Hindu traditions. Tod paid an eloquent tribute to their heroism in the following words: "What nation on earth would have maintained the semblance of civilization, the spirit of the customs of their forefathers, during so many centuries of



struggle was continued by his successor, Samara Simha, and it reached its culmination in the reign of the next ruler, Ratna Simha

Story of Padmini

There is hardly any educated Indian who does not know the story of Padmini Tod has given it a place of honour in his epic of Rajput chivalry But sober history is far less romantic than Tod s stirring narrative There is no contemporary evidence to show that the story of 'Padmini is historically true Ala ud din Khilji certainly besieged and occupied Chitor in 1303, but we have no historical reference to Padmini or Bhim Singh It is not improbable that the story was invented in the sixteenth century by a Muslim poet, Malik Muhammad Jayasi, whose well known poetical work, Padmawat, is a classic of Hindi literature

Ala ud din left his son Khizr Khan in charge of Chitor From Khizr Khan, or from his successor Maldev, Hamir of the Guhilot Dynasty, recovered Chitor probably during the reign of Muhammad bin Tughluq

Glory of Mewar

The fall of the Sultanate of Delhi towards the close of the 14th century and the establishment of comparatively weak Sultanates in Malwa and Gujrat made it possible for the rulers of Mewar to assume a leading position in Indian history In the 15th century Mewar became a powerful State under Rana Kumbha (*circa 1433 68*) He repeatedly fought against the Sultans of Malwa and Gujrat and raised a great pillar of victory at Chitor in commemoration of his successes He was a great builder of temples and fortresses, and a patron of learning He was also a gifted author The current story that Mira Bai, the well known devotee was his wife is not *true*

War with Gujrat and Malwa was a normal feature of Mewar s history during the 15th and the first four decades of the 16th century It was only after the establishment of the Mughal Empire that the target was changed The power

overwhelming depression, but one of such singular character as the Rajput? Rajasthan exhibits the sole example in the history of mankind, of a people withstanding every outrage barbarity can inflict or human nature sustain, and bent to the earth, yet rising buoyant from the pressure and making calamity a whetstone to courage"

Mewar Early History

The Guhilots of Mewar claim descent from Rama, the famous Epic hero belonging to the Solar Dynasty, but modern historical criticism connects them with foreign invaders who came to India after the decline of the Gupta Empire The traditional founder of the dynasty is Bappa, whose life probably covered the first half of the eighth century Probably the word 'Bappa is not a personal name Some modern writers identify him with Khummana, one of the early rulers of Mewar mentioned in her inscriptions No definite historical information is available about Bappa's career, although Tod has left for us many romantic and exciting details But it may be taken for granted that he founded a principality with its capital at Chitor—a principality which in course of time became the nursery of heroes and the cradle of chivalry

The early history of Mewar is still shrouded in obscurity. The Guhilots were probably vassals of the *Gujars—Pratiharas* of Kanauj during the eighth and ninth centuries Later on they probably transferred their allegiance to the *Rastrakutas* In the tenth and eleventh centuries the *Paramaras* of Malwa the *Chauhanas* of Ajmer and *Chaulukyas* of Gujarat dragged Mewar into their struggles for supremacy over Western and Central India Mewar was not yet strong enough to play an effective part in the stormy inter State politics of that age

The first remarkable ruler of Mewar was Jaitra Simha (circa 1213 56 A D) who found himself compelled to fight twice against the Muslims The Sultanate of Delhi had been established just before his accession and it was quite natural that the expanding power of the Turks should cross swords with the sturdy defenders of Hindu faith and culture The

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In spite of this unusual favour the Ranas of Mewar made repeated attempts to throw off the Mughal yoke Jagat Singh and Raj Singh repaired the fort of Chitor in contravention of the terms of the treaty of 1615 Shah Jahan sent an army to demolish the fortifications In 1679 Raj Singh espoused the cause of the Rathors and began war with Aurangzeb Peace was concluded in 1681 after his death

Marwar and Amber rose to prominence during the period of Mughal supremacy, for their rulers rendered conspicuous services to the Mughal Empire for about two centuries But the Ranas of Mewar kept themselves aloof from the splendour of Delhi and Agra——they never attended the Imperial court ——and thereby lost the advantage which fell to successful courtiers There was no change in the policy of Mewar even after the death of Aurangzeb The decadence of the Empire was utilised by the rulers of Marwar and Amber for the aggrandisement of their own power, but the weak and short-sighted successors of Raj Singh failed to make proper use of this excellent opportunity for the restoration of their former pre eminence

Mewar and the Marathas

The decline of the Mughal Empire and the rise of the Marathas changed the political situation to the disadvantage of the Rajputs. The Mughal Emperors in a sense deserved the tribute which they drew from Rajputana, for they enforced internal as well as external peace, and afforded the Rajput princes sufficient scope for the display of their military ardour and administrative skill But the Marathas rendered no service in exchange for the large sums they exacted by force Instead of suppressing internal dissensions in the Rajput States, they utilised them for their own aggrandisement No Rajput prince was allowed to fight under the Maratha banner as a respected vassal and the Maratha Empire gained nothing from the loyal service of the Rajputs, although

of Mewar reached its height during the reign of *Rana* Sangram Singh (1509-28). His conflict with the Sultans of Malwa and Gujrat were generally successful; on one occasion he even captured a Sultan of Malwa. But his fight against Babar, the founder of Mughal Empire, resulted in a disastrous defeat. Had the Rana emerged as the victor in the fateful battle of Khanua (1527), the Mughal Empire might have been crushed in the bud and a Hindu Emperor might have been enthroned in Delhi.

Mewar's War of Independence

Rana *Sangram* Singh's death was followed by a long period of turmoil in Mewar. His son, Vikramaditya, was defeated by Bahadur Shah of Gujarat and dethroned by some rebellious nobles. The throne was occupied by a usurper, Banbir, who was expelled by Vikrmaditya's younger brother, Uday Singh.

It was during Uday Singh's stormy reign that the Mughal fury fell upon Mewar. Akbar occupied Chitor in 1568. Among those who fell in defending the city were Jaimal and Patta who have immortalised themselves by their loyalty and valour. Uday Singh took shelter in the hills and founded the city of Udaipur which became the new capital of the State. He is generally represented as a weak ruler who sought safety in flight. But he did not submit to the mighty Mughal even after the submission of Marwar and Amber.

His son, Pratap Singh, is one of the greatest heroes of Indian history. He carried on the war which he had inherited from his father for about 25 years, and the thought of securing safety in surrender never crossed his mind. Tod gives a distressing picture of his sufferings and pays a glowing tribute to his undaunted patriotism.

Rana Pratap's mantle fell on his son Amar Singh who, if less courageous, was hardly less patriotic. For more than half a century Mewar struggled hard against the Mughals to preserve her independence, but neither patriotism nor geography could prevail for all time against enormously superior military power. In 1615 Amar Singh submitted to Jahangir;

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end on August 15, 1947, and Mewar became a part of independent India

Early History of Marwar

The Rathor clan, which so long ruled over the States of Jodhpur and Bikaner, claims a high antiquity for itself Tod connects the Rathors with the Gahadavalas of Kanauj There is epigraphic evidence to show that Siha, the founder of the Rathor principality in Marwar, was a descendant of the famous Gahadavala ruler of Kanauj, Jayachandra, who was defeated and killed by the Muslims in the battle of Chandwar in 1294 How the Gahadavalas migrated to Rajasthan and came to be known as Rathors, we do not positively know

It is very difficult to extract sober history from the legends about the early Rathor heroes in Marwar The modern history of the principality really begins with Chunda (circa 1394 1421), who occupied Mandor from a Parihar chieftain His successor Hodha (circa 1438-88), built the fort of Mandor and the city of Jodhpur Up to the beginning of the 16th century the Rathors were busy in consolidating and expanding their territorial acquisitions

Maldev Rathor

It was in the reign of Maldev (circa 1531 1562) that the growing Rathor principality became a powerful State He suppressed all recalcitrant nobles with a strong hand, occupied several districts and built strong forts for the protection of his dominions It seemed that the mantle of Rana Sangram Singh had fallen on him Undoubtedly he was for several years the leading prince of Rajasthan

While Maldev was pursuing a policy of aggrandisement in Rajputana Humayun and Sher Shah were fighting for the imperial throne of Delhi Maldev promised support to Humayun but the slow moving Mughal appeared in Rajputana too late and had to return disappointed Sher Shah could not tolerate a powerful Rajput prince threatening his newly established power He invaded Marwar, defeated Maldev,

the part played by them in the extension and consolidation of the Mughal Empire was even then a living memory. Had the Marathas utilised the Rajputs as the Mughals had done, the history of India in the 18th century would in all probability have flowed through different channels

Mewar, weak, decadent and unenterprising, fell an easy victim to Maratha aggression In 1736 Peshwa Baji Rao I came to Udaipur and imposed a heavy tribute In the reign of Pratap Singh II (1751-54) began a stormy period of disputed successions which made the Marathas the umpire in the family disputes of Mewar. The repeated depredations of the Marathas so exhausted Mewar that Rana Raj Singh II (1754-61) "was compelled to ask pecuniary aid from the Brahmin collector of the tribute to enable him to marry the Rathor chieftain s daughter" During the second half of the 18th century Maratha invasions as well as internal rebellions devastated Mewar

During the reign of Bhim Singh (1777-1825) Mewar's misery reached its climax The troops of Sindhia and Holkar and the Pindaris of Amir Khan devastated the Kingdom In 1910 took place the tragic sacrifice of princess Krishnakumari "Mewar", says Tod, "was rapidly approaching dissolution, and every sign of civilisation fast disappearing fields laid waste, cities in ruin, inhabitants exiled, chieftains demoralised, the prince and his family destitute of common comforts"

Mewar's Alliance with the Company

Rana Bhim Singh had sought for British protection as early as 1805, but his prayer was not seriously considered till the days of Lord Hastings In 1817 Metcalfe was instructed to conclude an engagement with Mewar Negotiations were carried on in Delhi and the treaty was signed on January 13, 1818 The British Government took Mewar under its protection and the Rana agreed to "act in subordinate co operation with the British Government and acknowledge its supremacy". This engagement came to an

father in law of Emperor Farrukh siyar. But he revolted against imperial authority more than once and never pursued any consistent policy

His son and successor, Abhay Singh (1724-49), was a powerful prince He was for some time Governor of Gujarat He fought against Bikaner and inflicted a defeat on Sawai Jai Singh of Jaipur in 1741 His ambition, says Tod, was 'to be deemed the first swordsman of Rajwara'

Marwar and the Marathas

Abhay Singh's death was followed by a war of succession, at the end of which the throne was occupied by Bijay Singh (1752 92) His long reign may be described as a continuous struggle against the Marathas His rival Ram Singh, became a protege of the Marathas who thus found an excellent opportunity to interfere in the affairs of Marwar This unfortunate State became 'the special hunting ground of the Sindhia family'

Bijay Singh s successor, Bhim Singh (1793 1803), tried to consolidate his personal authority by murdering his rivals The depredations of the Marathas continued

Marwar's Alliance with the Company

The long reign of Man Singh (1803 43) was a period of storm and stress for Marwar The sudden death of Bhim Singh in the midst of a war of succession brought him to the throne Internal troubles compelled him to conclude a treaty of subsidiary alliance with the East India Company (1803), but he changed his mind refused to ratify the treaty and entered into negotiations with Jaswant Rao Holkar who was then fighting against the British

Meanwhile the war of succession continued, some of the nobles of Marwar led by Sawai Singh of Pokaran, supported the claims of Dhokal Singh, the posthumous son of Bhim Singh Raja Jagat Singh of Jaipur who was Man Singh s rival for the hand of princess Krishnakumari of Mewar, took up the cause of the pretender In the long and bitter struggle which

but returned to his capital without trying to annex any part of Rajputana.

Maldev was weakened, but not crushed, by Sher Shah's invasion. In his old age he failed to resist the restored Mughal Empire. His death was followed by domestic disputes; while one of his sons, Chandrasen, emulated the example of Rana Pratap of Mewar; another named Uday Singh submitted to Akbar.

Mughal Supremacy over Marwar

The supermacy of the Mughals over Marwar was well-established in the reign of Uday Singh (1583-95), who strengthened his position by a marriage alliance with the imperial family. The Emperor gave him rich districts in Malwa and helped him against his disobedient vassals. His successors, Suraj Singh and Gaj Singh, fought for the Empire in Gujrat and the Deccan.

Jaswant Singh (1638-78) was the leading Hindu prince in Shah Jahan's court and played an important part in the history of the Mughal Empire. He supported Dara in the war of succession among Shah Jahan's sons and thereby incurred the lasting displeasure of Aurangzeb. But he was too powerful to be crushed; so Aurangzeb made his terms with him and even sent him to the Deccan to fight against Shivaji. Jaswant Singh's premature death is generally believed to have been due to poisoning under the secret orders of the Emperor.

Jaswant Singh's successor was his posthumous son, Ajit Singh (1679-1724), whose claim was not, however, recognised by Aurangzeb. A Mughal force occupied Marwar. Fortunately the Rathors found an able leader in a chief named Durgadas, who saved the life of the infant prince, organised an alliance with Rana Raj Singh of Mewar, and waged a bitter struggle against the Mughals for thirty years. Peace was concluded after Aurangzeb's death in 1708.

After 1708 Ajit Singh consolidated his authority in Marwar and became powerful enough to play a prominent part in imperial politics. He was an ally of the Sayyid brothers and

the early Kachwaha chiefs whose exploits are narrated by Tod It was probably in the 14th century that the territories of the Kachwahas became an organised State A Kachwaha chief named Shekhji laid the foundation of the Shekhawati con federation which in Tod s days covered an area of about 10,000 square miles

Amber and the Mughals

The Kachwaha princes did not attain much prominence before they connected themselves with the Mughal Empire The power and prestige which they enjoyed in the 16th and 17th centuries came as a reward for the signal services which they rendered to the Timurids,

In 1561 Bihari Mal submitted to Akbar and cemented this alliance by a matrimonial connection This arrangement raised the Kachwaha family to the highest position and influence in the imperial court "No Raja, no grandee was honoured by Akbar more than Raja Bihari Mal The Mughal Empire also profited by this alliance V A Smith says that the marriage (of Akbar) with the Amber princess secured the powerful support of her family throughout the reign, and offered a proof manifest to all the world that Akbar had de cided to be the Padshah of his whole people – Hindus as well as Mahommedans

Raja Bhagwandas (1569 89) and Raja Man Singh (1589 1613) rendered conspicuous services to the Mughal Empire as generals and provincial governors The latter is one of the most well known heroes of mediaeval Indian history He did more than any other imperial general to crush the Afghans in Bihar, Bengal and Orissa and to incorporate those provinces within the Mughal Empire His long Governorship of Bengal was marked by 'great prudence and justice Akbar lovingly called him 'Farzand (son) He was a great patron of arts and built the famous temple of Govinda at Mathura

The next remarkable ruler of Amber was Mirza Raja Jai Singh whose long career during the reigns of Jahangir, Shah Jahan and Aurangzeb was eminently successful He fought

followed, the Marathas and the Pindaris also were involved. Man Singh saved his throne with the help of the Pindari leader, Amir Khan, but that unscrupulous adventurer became the real master of Marwar. Man Singh helplessly fulfilled his demands and secretly negotiated with the British Government for a treaty, but Lord Minto, the then Governor General, refused to be entangled in the affairs of Rajputana. At last Man Singh's reason was effected. Tod says, "He shut himself up in his apartments, refused to communicate with any one, and soon omitted every duty, whether political or religious." His son, Chuttur Singh, became Regent. Sindhia and Amir Khan continued to plunder Marwar.

In 1817 the British Government changed its policy towards the Rajput States. Under orders from Lord Hastings, the then Governor General, Metcalfe concluded a treaty with Jodhpur on January 6, 1818. The terms were similar to those granted to Mewar. Chuttur Singh died soon after the ratification of the treaty. Man Singh was restored to power.

The protection of the paramount power lapsed on August 15, 1947, and Marwar acceded to the Indian Union.

Bikaner

The State of Bikaner was founded by a Rathor prince named Bika, a descendant of the Jodhpur family, in the 15th century. Rai Singh (circa 1573-1631) became a vassal of the Mughal Empire in the reign of Akbar. On account of its geographical position, Bikaner did not suffer from the depredations of the Marathas, whose route lay across the eastern part of Rajputana. In 1818 Surat Singh concluded a subsidiary alliance with the British Government.

Early History of Jaipur

The Kachchhapaghatas or Kachwahas of Amber claim descent from Kusa, son of Rama, the famous Epic hero. It is said that in 967 a chief named Dhola Rai found[ed] [his] principality in Dhundar. In the present state of our knowledge it is not possible to give a strictly historical account of

Jaipur and the Marathas

Sawai Jai Singh's death was followed by a war of succession between his sons, Ishwari Singh and Madho Singh. The latter was supported by the Marathas and the Rana of Mewar. Unable to resist the Marathas Ishwari Singh committed suicide (1750). Madho Singh occupied the throne and pursued an anti Maratha policy till his death (1768). Tod says, "He built seven cities, of which that called after him Madhopur, near the celebrated fortress of Rantambhor, the most secure of the commercial cities of Rajwara, is the most remarkable. He inherited no small portion of his father's love of science, which continued to make Jaipur the resort of learned men, so as to eclipse the sacred Benares"

After Madho Singh came prolonged anarchy and turmoil which weakened Jaipur and made the State a helpless victim of Maratha aggression His two immediate successors—Prithvi Singh (1768-78) and Sawai Pratap Singh (1778-1803)-were minors The Jats of Bharatpur, who were vassals of Jaipur, had become very powerful in Madho Singh's reign. Another vassal, Pratap Singh Naruka of Macheri, founded the independent principality of Alwar Mahadji Sindhia and Daulat Rao Sindhia invaded Jaipur several times and realised large sums of money

Jaipur's Alliance with the East India Company

Jagat Singh (1803 18) concluded a treaty of subsidiary alliance with the British Government in 1803 and reluctantly co operated with it in the Second Maratha War. Lord *Cornwallis cancelled the treaty* Meanwhile Jagat Singh had involved himself in a quarrel with Man Singh of Jodhpur. Both of them wanted to marry Krishnakumari, the unfortunate princess of Mewar Jagat Singh supported Dhukol Singh, Man Singh's rival for the throne of Jodhpur, and began a war which ended disastrously for Jaipur His territories were ravaged by the Marathas and the Pindaris of Amir Khan, even repeated payments of large sums of money brought no permanent relief.

under the imperial banner in every part of the Empire – from Balkh and Kandhar to Bihar and the Deccan. "In diplomacy he had attained to a success surpassing even his victories in the field. Wherever there was a difficult or delicate work to be done, the Emperor had only to turn to Jai Singh. A man of infinite tact and patience, an adept in the ceremonious courtesy of the Muslims, a master of Turki and Persian, besides Urdu and Rajput dialects, he was an ideal leader of the composit army of Afghans and Turks, Rajputs and Hindustanis, that followed the crescent banner of the sovereign of Delhi". He played a leading part in the war of succession among Shah Jahan's sons It was he who defeated Shivaji, compelled him to sign the treaty of Purandar and pursuaded him to visit the imperial court of Agra His son and successor, Ram Singh, led an expedition for the conquest of Assam in the reign of Aurangzeb

Sawai Jai Singh (1698-1743), whose lot was cast in the declining days of the Mughal Empire, was a remarkable man. "As a statesman, legislator and man of science", says Tod, "the character of Sawai Jai Singh is worthy of an ample delineation, which would correct our opinion of the genius and capacity of the princes of Rajputana, of whom we are apt to form too low an estimate" He was the founder of the new capital Jaipur, which was designed and constructed by a Bengali Engineer, Vidyadhar The latter is described by Tod as "one of the most eminent coadjutors of the prince in all his scientific pursuits, both astronomical and historical" Jai Singh was a celebrated astronomer He erected observatories with instruments of his own invention at Delhi, Mathura, Jaipur, Ujjain and Benares.

He played a leading part in the history of the declining Mughal Empire during the reigns of Farrukhsiyar and Muhammad Shah As Governor of Agra he fought against the Jats As Governor of Malwa he fought against the Marathas He occupied Bundi, but suffered a defeat at the hands of the Rathors in the battle of Gangwana (1741).

Completion of British Supremacy

The collapse of the Maratha Empire made it inevitable for the Rajput Princes to accept British Supremacy. The ruler of Karauli concluded a treaty on November 9, 1817. The small principality of Kishangarh, an offshoot from Jodhpur, accepted subsidiary alliance on March 26, 1818. The three small principalities of Banswara, Partapgarh and Dungarpur — all offshoots from Mewar — accepted treaties on December 25, October 5 and December 11, (1818) respectively. The last to submit was Sirohi (September 11, 1823).

Thus the whole of Rajasthan lay prostrate at the feet of Britain. Deliverance came on August 15, 1947.

During Lord Minto's Governor-Generalship, Jagat Singh tried several times to get a new treaty from the British Government, but the policy of non-intervention then in vogue stood in his way. In 1816 Lord Hastings directed Metcalfe to conclude a treaty with Jaipur. After protracted negotiations the treaty was signed on April 2, 1818. The terms were similar to those granted to Udaipur and Jodhpur

The Maharaja of Jaipur is now the Raj Pramukh of the Greater Rajasthan Union.

Kotah and Bundi

"Haravati," says Tod, "or Harouti, the country of the Haras, comprehends two principalities, *viz* Kotah and Bundi" The Haras are a branch of the Chauhans who once ruled at Ajmer. The early history of the Hara principality is obscure *The city of Bundi became its capital about the middle of the* 14th century Rao Surjan became a vassal of the Mughal *Empire in the reign of Akbar The separation between Bundi* and Kotah took place in Shah Jahan's time Tod says that *the name* "Kotah" is "*derived from a community* of Bhils called 'Koteah' Zalim Singh, dictator of Kotah, is a famous figure in modern Rajput history Tod gives a detailed sketch of his character and career

Both Kotah and Bundi, particularly the former, suffered much from the depredation of the Marathas Metcalfe concluded a treaty with Kotah on December 26 1817 Tod concluded a treaty with Bundi on February 10 1818

Jaisalmer

Jaisalmer is the land of the Bhattis, a branch of the Yadus The *early history* of the principality is lost in *legends* A prince named Jesal founded the city of Jaisalmer in 1165 The State submitted to the Mughal Empire, but escaped the depredations of the Marathas on account of its geographical situation

On December 12, 1818, Metcalfe concluded a treaty with Jaisalmer.

radiating in all directions from the Sarasvati valley, gradually overspread the whole of India from the Himalayas to Cape Comorin, and from the Bay of Bengal to the Arabian Sea In the third century before Christ, however, when Asoka preached Buddhism in its universal aspects of truth, respect towards one's teachers elders and superiors and non injury to animals many people accepted it as their faith It was easier to understand than the subtle philosophy of the Upanishads, and more rational than the teachings of the Srauta Sutras and the Brahmanas A stone slab inscription at Bairat (Jaipur Division) now removed to Calcutta, declared Asoka's faith in the Buddhist Trinity and exhorted monks, nuns, as well as the laity to meditate on and recite certain well known texts from Buddhist scriptures [4] Even in the seventh century, when Yuan Chwang visited India Bairat had a number of Hinayana monasteries though all of them lay almost deserted [5] Inspite of royal support here and there Buddhism was obviously on the decline Its last mention in Rajasthan is in the Shergarh (Kotah) inscription of V 847 (790 A D) which records the construction of a Buddhist temple and monastery by a Naga chief named Devadatta

Another faith too Jainism which like Buddhism rejected the authority of the Vedas and emphasised the spiritual importance of Ahimsa or non injury to all beings, found early enough many converts in Rajasthan A Jain inscription of Vira Samvat 84 i e 443 B C at Warli in the Ajmer District[6] shows that Jainism reached Rajasthan at least two hundred years before the reign of the great Jain Emperor, Samprati Maurya who is credited with the building of many Jain temples in Western India Further accessions followed in due course, with the result that by the beginning of the eighth century of the Christian era, Jainism was under the influence of all those factors which were at the time undermining Buddhism

4 Corpus Inscriptionum Indicarum I p 172 ff

5 Beal Buddhist Records of the Western World I p 174

6 It is in the Rajputana Museum

THE CULTURAL HERITAGE

by Dr Dasharatha Sharma

Rajasthan is the proud possessor of a cultural heritage going back to the remotest periods of Indian history Here ruled Virata of Matsya at whose court the Pandava hero Arjuna, disguised as Brihannala, taught dancing and music to his would be daughter in law, Uttara [1] Through it flowed the once mighty river Sarasvati, the modern Ghaggar,[2] on the banks of which Vedic seers composed the inspiring hymns addressed to Hiranyagarbha, Vishwakarman, Prajapati and Brahmanaspati Stretching away from the Sarasvati to the south was the Naimisha forest where *rishis* not merely practised austerities but also held long sacrifices, lasting for years – sacrifices the leisure hours of which were devoted to the recitation of the sacred Puranas and discussion of knotty problems of religion, philosophy and sacrificial lore Even during the paleolithic and neolithic periods, probably, Rajasthan was not without some culture, and the expert hands of some archaeologist might, some day, uncover in the Sarasvati valley a culture as old and interesting as that found at Mohenjodaro Harappa and Rupar [3]

Religion

It was but natural that the early inhabitants of Rajasthan should be the followers of a religion the Vedic which

1 *Mahabharata Viratapavan* Chapter XI

2 The whole river system based on this river has [illegible] rendering a very fertile and prosperous area into a desert

3 I have seen old potsherds and urns with ashes from the dry bed of the Ghaggar But being no anthropologist or archaeologist I can hardly speak with any authority on the subject The mounds in the north western part of the Bikaner division need exploration

radiating in all directions from the Saraswati valley, gradually overspread the whole of India, from the Himalayas to Cape Comorin, and from the Bay of Bengal to the Arabian Sea. In the third century before Christ, however, when Asoka preached Buddhism in its universal aspects of truth, respect towards one's teachers, elders and superiors, and non injury to animals many people accepted it as their faith It was easier to understand than the subtle philosophy of the Upanishads, and more rational than the teachings of the Srauta Sutras and the Brahmanas A stone slab inscription at Bairat (Jaipur Division) now removed to Calcutta, declared Asoka's faith in the Buddhist Trinity and exhorted monks, nuns, as well as the laity to meditate on and recite certain well known texts from Buddhist scriptures [4] Even in the seventh century, when Yuan Chwang visited India, Bairat had a number of Hinayana monasteries, though all of them lay almost deserted [5] Inspite of royal support here and there Buddhism was obviously on the decline Its last mention in Rajasthan is in the Shergarh (Kotah) inscription of V 847 (790 A D) which records the contruction of a Buddhist temple and monastery by a Naga chief named Devadatta

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Discipline became lax, a rich laity made the monks' life easy, desire for money, property and earthly honour guided most of her spiritual leaders From this insidious rot Jainism was rescued by a number of brilliant teachers of whom Haribhadra Suri of Chitor (700 770 A D) was the foremost Uddyotana and Siddharshi Suris, both of Rajasthan, made his teachings better known, but the people who did most to popularise them were the followers of the *gachchha* known later on as *Kharatara* on account of their strict adherence to the rules of the Jain church They did not pay merely lip service to Haribhadra's anti corruption drive they actually made it into a living force by their preachings, writings discussions, debates and personal examples Jinavallabha established reformed temples at Marwar, Chitor, Marot and Nagor His pupil Jinadatta (V 1169 1211) wrote a number of works in Apabhramsa telling the people in the simplest and plainest languages about the defects that had crept into the Jain church And Jinapati, a contemporary of Prithviraj of Delhi and Ajmer carried the message of his masters to every nook and corner of Rajasthan during the course of a very long ministry Another great spiritual force was the great Acharya Hemchandra of Gujarat, acting under whose influence, Kumarpala Chaulukya (1143 1173 A D) tried to spread Jainism throughout his dominions and these dominions, it might be well to remember included not only Gujarat but also Malwa Mewar Marwar and parts of India south of the Vindhyas

Jainism in Rajasthan

Even when the Muslims conquered large parts of India Jainism continued to flourish it probably made even new conquests Jains held responsible posts at the courts of Muslim rulers and thanks to the money and influence of these officers, Jain *yatras* in the Muslim period were no less frequent than before When the Mughals conquered Northern India, the Jains were perhaps the first to get into intimate touch with them Jain scholars from Nagor received honour at the hands of Babar and Humayun The Raja,

Padmasundara of the same town was with Akbar even before 1156 A D and might have been partly responsible for the Emperor's heterodox leanings [7] The influence of Rajasthani Jains on Mughal religious policy thereafter too appears to have been considerable, though it was perhaps never so great as in the reign of Akbar

During this period Jainism saw a new type of reformist movements In their absolute rejection of idol worship, the Sthanakavasins might have been influenced by Islamic teachings. Even more extreme is the doctrinal standpoint of one of their comparatively modern offshoots, the *Terapanthis*, followers of a teacher named Bhikshu, who mainly adhere to the teachings as laid down in the *Bhagvati Sutra*

The number of Jains now in Rajasthan, of the Digambaras as well as the Svetambaras, is fairly large Their proselytizing activities may have now practically ended, but the impress they have left on the culture of Rajasthan is strong and abiding That the Brahmanas here eschew meat and fish, things freely taken by them in many parts of Northern India, must primarily be ascribed to the Ahimsa generated by their centuries of contact with the vegetarian Jains for whom Ahimsa is the greatest *dharma*

Revival of Sacrifices

The religion, however, that now claims the largest number of votaries in Rajsthan is the one that Buddhism and Jainism had tried to oust The Brahmanas' first reaction, after a period of Buddhist and Jain predominance, was to hark back to everything Vedic They revived the bloody sacrifices that had given so much offence to Buddha and Mahavira They perhaps even thought that by doing so they were bringing back *Krita* or *Satya yuga* The *yupa* inscriptions in Kotah Division bear dates in the Krita era, for them Kali seems to have passed away Sarvatata, a ruler of Madhyamika

7 See the Introduction to Padmasundara s *Akabara sahi Srinagara darpana* in the Ganga Oriental Series Bikaner

in Mewar, performed a horse srcrifice; and though no evidence is available on the point it is not unlikely that for a short period thousands of animals might have been sent to the sacrificial altar.

But the public conscience appears to have soon revolted against ruthless wastage of animal life. Hinduism to be acceptable to the masses had to be recast in a manner not antagonistic to the humane teachings of Buddhism and Jainism. So we soon find the Vedic gods receding into the background. The Trinity; Brahma, Vishnu and Shiva, who now took their place, had no need for sacrifices. One of them, Vishnu, is even believed to have incarnated himself as Rishabha, the first Jain Tirthamkara, and also as Gautam Buddha, the founder of historical Buddhism.

Pushkar

Pushkar is regarded as a site of Brahma's sacrifice. It still has a temple of Brahma. Temples dedicated to Brahma existed also at Khed, Bithu and some other places. A more popular god has been Vishnu in his various forms. Followers of Ramanuja, Ramananda as well as Vallabha exist in Rajasthan, though the most popular system is perhaps that preached by the last of these great teachers. Our great poetess and saint, Mira, too, was a worshipper of Krishna and a follower of the Vallabhasampradaya.

Saivism also has all along been one of the most popular faiths of Rajputana. Most of the Chauhan rulers were worshippers of Siva, with Harshanatha in Sikar (Jaipur) as their family god. Guhilas of Mewar are worshippers of Ekalinga, and so are many of the other ruling families of Rajasthan. The Pasupatas were at one time the most influential of the Saiva schools. But now all such distinctions of schools and systems have become obliterated; it is enough if one worships Siva.

Almost equally extensive in Rajasthan is the worship of Sakti. Most Rajputs are her worshippers. And then connected with Siva and Sakti is the worship of Ganapati, Skanda, Bhairava and Surya or the Sun. The worship of the last of

these dieties was at one time much more popular than it is at present

Tolerance of Different Faiths

Last of all to enter the religious field have been Islam and Christianity And mention must also be made here of saints like Dadu and the great reformist movement initiated by Swami Dayanand Saraswati, the founder of the Arya Samaj, who asked the Hindus, or Aryas as he called them, to go back to the Vedas and to learn from them that there is only one God, that all human beings are equal and that social justice is the right of every one, man or woman, Brahmin or so called Sudra But to whichever sect or faith a *Rajasthani* might belong he has been by nature as well as tradition not merely tolerant but also respectful of the religious beliefs of others All gods, all goddesses, all objects of worship are to him just so many aspects of that Supreme Being who is equally Siva, Sakti, Brahma, Vishnu, Rama, Rahim and God [8] Rajasthan has known to fight for and preserve its culture, it has ever disdained to persecute anyone for his religious beliefs. Abul Fazl, the part creator of *Akbar's Din i-ilahi*, also belonged to our province

Society

Society in the earlier periods of our history was a less complex affair than it is at present The caste system was less rigid Inter-caste marriages were not unknown Harishchandra, the Brahmana ancestor of the Kshatriya and Brahmana Pratiharas of Mandor (Jodhpur) had two wives, one belonging to his own caste and the other a Kshatriya But with the coming of the Muslims, the necessity to preserve Hindu culture and society led to an increasing rigidity in the caste rules It led also to the numerous divisions and sub-divisions with which we are so familiar In this respect Brahmans have been the worst sinners Kshatriyas preserved

8 See for instance the invocatory verses of the *Akabarasahisringardarpana*

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It is difficult to predict anything about the future social set up of Rajasthan With the advent of of Gandhism, the loosening of caste bonds, and the passing of the Hindu Code Bill, we might soon be reaching a new stage in our social evolution, a stage, however, implicit in every way in the teachings of our great saints and philosophers

Literature and Science

In our province of wide vistas and unobstructed views we had naturally enough literature that could soar out even to the infinite The tenth *mandala* of the Rigveda was most probabaly composed on the banks of the Sarasvati Here grew up perhaps also the early *Brahmanas and sutras* But of the literature produced for nearly a thousand years therafter we know nothing The great astronomer, Varahamihira, was probably a Rajsthani his commentator Brahmagupta (born 589 A D) certainly was He wrote his great work, the *Brahma sphutasiddhanta* at Bhinmal From Bhinmal came also the great poet Magha whose work, the *Sisupalvadha*, ranks as one of the best *kavyas* of Sanskrit, second not even to Kalidasa's *Raghuvamsa* and *Kumarsambhava* if the Indian pandits' verdict be accepted It produced also the great Jain scholar Sidharshi Suri, the writer of the *Upamitibhavaprapancha*, perhaps the world's finest allegory regarding human life Uddyotana Suri wrote his *Kuvalayamala Katha* in Jalor At Ajmer, Vigraharaja IV (1157 1174 A D) wrote a fine drama, the *Harakeli* His court Poet Somadeva, composed the *Lalita vigraharaja nataka* Jayanaka, the writer of the *Prithviraja-vijya* adorned the court of Prithviraja III Raghavachaitanya and Sarngdhara belonged to Ranthambhor, and intimately connected with it were also Jayasimha Suri, the author of the *Kumarapalacharita*, and Nayachandra, the writer of the Hammiramahakavya To Rajasthan might be assigned also the Prakritapaingala, a work on Prakrit and Apabhramsa prosody written somewhere in the 14th century

Even when many of the independent kingdoms of Rajasthan had fallen one by one before the onslaught of the Muslims,

themselves for a while from the narrowing influence of the system The Huns are outsiders, yet they admitted them within their fold The well known Rajputs, the Chauhans and Guhilas, were perhaps originally Brahmins and the Badgujars are probably allied in some way with the Gurjaras In fact the modern Kshatriya caste of the Rajputs can be proved to have originated from various sources, their only bond of unity being that they all inter married and followed the military profession The same liberal tendency perhaps now accounts for inter marriages between Rajputs and Marathas

The Vaisyas

The Vaisyas were once husbandsmen But the influence of Buddhism and Jainism made them regard agriculture as sinful, with the result that now they are mostly traders And so are also most of the Jains, who though descended from many castes, are now regarded as Vaisyas The professions which were once reserved for Vaisyas are now follwed by Sudras, many of whom are no longer willing to regard them selves as members of the fourth caste of Hinduism The Kayasthas cannot be easily fitted into the caste system, most probably for the reason that they were originally merely clerks and must have been as such drawn from many castes Last in the scale comes the Antyajas or Harijans whose lot in Rajasthan, though never so bad as in some other provinces, has never been very satisfactory

As regards women, their position in Rajsthan has been one of honour Rudrani of Sakambhari was a yogini Karpura devi acted for years as the regent of her son, the celebrated Prithviraj Chauhan of Ajmer and Delhi By consigning themselves alive to the fire, when Muslims captured forts like Chitor, Ranthambhor, Jalor and Jaisalmer, they proved that they cared more for their honour than their lives They have produced also a number of eminent poetesses of whom Mira was unquestionably the greatest At the present moment their greatest drawbacks are the *Parda* a banal inheritance coming down from a very early period, and then colossal illiteracy, the result of many years of almost criminal neglect on the part of the people as well as past state governments

proud Suryamalla's '*Vamsabhaskara*' is a great tribute not only to this great bard's historic knowledge but also to his undoubted poetic talent *Khichi Achaldas ri vachanika, Jai ta ras, and Ratan Mahesdasot ri vachanika* are also meritorious compositions, though rather jejune in their style Last in this line comes Bankidas whose poetry has all the elegance as well as vigour of Rajasthani poetry at its best

Of commemorative songs we have thousands These coupled with the edition of our Khyats, the *Khyat of Nainsi*, the *Khyat of Dayaldas* and so forth would add much to our knowledge of history of Rajasthan [10] As poetic composition too many of our commemorative songs would beat hollow the heroic ballads of any language, whether of the East or the West

Poetry and Prose in Rajasthan

Rajasthan has been enriched also by the poetical outpourings and teachings of many great saints Dadu, though a Gujarati by birth, spent most of his time in Rajasthan and died in the hills of Bharana (Jaipur) Raidas too seems to have sojourned here But greater than both, as far as real poetry is concerned, is our Mira whose devotional songs are on the tongues of not only Rajasthanis but of most devotees also of Hindi and Gujrati speaking areas Among devotional poets we might put also Prithviraj Rathor whose *Beli Krishna Rukmani ri* is one of the finest gems of Dingal or Rajasthani poetry Of other saints, whose sayings are to be found in Rajasthani, we might mention Jasnath, Sundardas, Sodhi, Nathi, Narsi and Balakdas

Rajasthani prose includes numerous *Khyats*, translations of *Persian histories* and Sanskrit epics, and stories of various types Only a few of these have been published so far These along with Rajasthani folk songs need early collection and publication

Rajasthan's service to Hindi, too, has been very great Matiram, one of the *navaratnas* of Hindi poetry was a protege

10 For material for the history of Bikaner for instance see my edition the Khyat of Dayaldas Vol II,

the great Sanskrit tradition was carried on by Rajsthanis and the production of Sanskrit works on various subjects was fairly prolific Jaipur, Bikaner, Jodhpur, Mewar—all contributed their share, and even a select list of the books then written would cover a number of pages At random we might mention the *Rayasimhamahotsava*, *Jayasimhakalpadruma*, *Anupavilasa*, *Sahityaratnakara*, *Karnavatamsa*, *Kavyadakini*, *Karnabhushana*, *Jasavanta vilasa* *Sangitaraja* and *Sangitasringarahara* [9]

Vernacular Literature

Nor was Rajasthan backward in the production of vernacular literature The *Apabhramsakavyatrayi* of Jinadatta Suri (1169 1211) and *Palhastuti* (1170 V) were followed by similar other compositions some of which have been brought together and published by Seth Agar Chand Nahta in his "*Aitihasika Jaina Kavyasangraha* As country of warriors, Rajasthan naturally specialised also in the composition of viragathas or poems dealing with the lives of its great heroes Our bards, the Charans and Bhats have given us more copious literature in this line than their compeers in the other provinces of India Chand Bardai wrote in the 12th century his great poem, the *Prithvirajaraso* which with its numerous additions and alterations has now become a *Mahabharata* of Hindi literature In his *Kanhadadeprabandha* written in 1355 A D , Padmanabha sang the glories of the valiant Kanhadade of Jalor who like Hammira of Ranthambhor who too is commemorated in a number of songs and poems fought against Alauddin Khilji the tyrannical Sultan of Delhi Sujo Nagarjot's ' Chhand Rao Jaitsi ro described Rao Jaitsi's victory over Emperor Humayun's brother, Kamran Bisaldev Raso, though composed rather late, perhaps in the 17th century had an equally heroic subject, viz, Bisal, the Great of Ajmer The poems of Prithviraj Rathor and Adha Dursa inspired the Mewaris to do the valorous deeds of which Rajasthan is still

9 Sanskrit is no dead language for Rajputana Production of Sanskrit works still continues

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the great Sanskrit tradition was carried on by Rajasthanis and the production of Sanskrit works on various subjects was fairly prolific Jaipur, Bikaner, Jodhpur, Mewar—all contributed their share, and even a select list of the books then written would cover a number of pages At random we might mention the *Rayasimhamahotsava*, *Jayasimhakalpadruma*, *Anupavilasa*, *Sahityaratnakara*, *Karnavatamsa*, *Kavyadakini*, *Karnabhushana*, *Jasavanta vilasa* *Sangitaraja* and *Sangitasringarahara* [9]

Vernacular Literature

Nor was Rajasthan backward in the production of vernacular literature The *Apabhramsakavyatrayi* of Jinadatta Suri (1169 1211) and *Palhastuti* (1170 V) were followed by similar other compositions some of which have been brought together and published by Seth Agar Chand Nahta in his "*Aitihasika Jaina Kavyasangraha* As country of warriors, Rajasthan naturally specialised also in the composition of viragathas or poems dealing with the lives of its great heroes Our bards, the Charans and Bhats have given us more copious literature in this line than their compeers in the other provinces of India Chand Bardai wrote in the 12th century his great poem, the *Prithvirajaraso* which with its numerous additions and alterations has now become a *Mahabharata* of Hindi literature In his *Kanhadadeprabandha* written in 1355 A D, Padmanabha sang the glories of the valiant Kanhadade of Jalor who like Hammira of Ranthambhor who too is commemorated in a number of songs and poems fought against Alauddin Khilji, the tyrannical Sultan of Delhi Sujo Nagarjot's "Chhand Rao Jaitsi ro described Rao Jaitsi's victory over Emperor Humayun's brother Kamran *Bisaldev Raso* though composed rather late, perhaps in the 17th century had an equally heroic subject, viz, Bisal, the Great of Ajmer The poems of Prithviraj Rathor and Adha Dursa inspired the Mewaris to do the valorous deeds of which Rajasthan is still

9 Sanskrit is no dead language for Rajputana Production of Sanskrit works still continues

Fine Arts

And then Rajasthan is no back number also in the field of fine arts. It has known to amass money and also to make good use of it. No part of Northern India has finer temples than Rajasthan. The *mandapas* of the Dilwara (Abu) temples "are worked with an elegance that defies all description. The hard stone is worked as if it were a fragile substance like paper." The Badoli (Mewar) temple of Siva, though less known, is also an excellent specimen of Rajasthani workmanship. Other fine temples of the Muslim period exist in Nagada, Chitor, Osia, Barman and Nohar, and more would certainly have been in existence but for the inconoclastic fury of the early Muslim invaders. The great Sarasvati temple of Vigraharaja IV of Ajmer has been trasformed into the mosque known as *Adhai din ka Jhompra* Of the Kiradu temples only a few lintels have now been left. The splendid Bahadevsvar temple of Ranthambhor was destroyed by Alauddin Khalji.

During the medieval period too many splendid temples were built; but mainly perhaps the architectural energies of the people were directed towards the construction of forts, victory towers, and palaces. Maharana Kumbha's fortress of Kumbhalgarh, the Jayasthambh[13] of Chitore, the forts of Jodhpur and Jaisalmer, the palaces of Jaipur and Bikaner, all belong to this era. Maharana Kumbha's monuments and buildings are indicative not only of his genius as a builder but also his love of Hindu tradition. At other places we find much greater influence of ideas derived from Muslim sources. Of towns too many grew up during this period, mostly round forts where the people could find shelter in case of invasion from outside. There is not, however, much sign of planning about them except in Jaipur, laid out by that genius in this line, the minister Vidyadhara.

In the British period, western architectural ideas have naturally exerted their influence and given rise to an eclectic system which combines harmoniously and ... acon-

rding

of Maharaja Bhavasingh of Bundi. Padmakar was a court-poet of Maharaja Jagatsingh of Jaipur to whom he presented his work, the "Jagad-vinod". Padmakara's treatise on rhetorics, the "Padmabharana" was also written in Jaipur. Sundardas, perhaps the greatest of the successors of Dadu, enriched Hindi with his didactive poetry. *Pandavayasenduchandrika* of Svarupadas and *Viravinod* of Ganesha Puri similarly are Hindi works. But as far as the number of Hindi works produced by a single Rajasthani is concerned - and the number of such producers would easily run into thousands - perhaps the record is held by the Muslim poet, Jan (V 1721), a scion of the Kayamkhani royal family of Fatehpur. Of his 70 works, large as well as small, a few have been published by Seth Agar Chand Nahta.[11] During the present century Rajasthan has shown its love for Hindi by being one of the first to recognise Hindi as a court-language and to permit its use in State legislatures. Excellent work in Hindi is being done at Bikaner, Udaipur, Jaipur, Jodhpur and Kotah. But this is hardly the place to say much about it.[12]

Commercial Superiority

Rajasthan has been an abode of Sarasvati, but it is equally, if not more, the abode of Lakshmi, the goddess of wealth and prosperity. It has ever been a leader in the commercial sphere. In the Buddhist period, its big caravans travelled to the ports on the western coast. In the Muslim period its big bankers financed the undertakings of the Sultans and in the modern period the tradition has been continued without any break. Our Birlas, Dalmias and Singhanias are well known. In fact there are few parts, not only of India but even of the world where the Rajasthani trader has not reached and competed successfully with his rivals using industry, frugality and an uncommon commercial acumen as his weapons.

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11. Jan's Kayamraso is being edited for the Nagari Pracharini Sabha, Banaras by Seth Agar Chand Nahta and the present writer.

12. Good Urdu poetry had been produced at Jaipur while [illegible] Jodhpur had produced some works in Persian also.

Love of Liberty Political Institutions

It is hardly possible to do justice to our subject within the compass of a few pages. We have noticed above only a few salient facts and finish our survey—incomplete though it is bound to remain—by noticing one of Rajasthan's most remarkable characteristics, namely its love of liberty and independence. We shall say also by the way, a few words about the political institutions of Rajasthan.

Earliest Indian Polity

The earliest Indian polity was everywhere largely democratic. The existence of *Sabhas* and *Samitis* with extensive powers of controlling and, if necessary, removing the executive head ensured the people's sovereignty. Later on strong monarchies like Magadha came into existence. But to this general tendency Rajasthan long remained an exception. In the Mahabharata the Sibis, Malwas, Trigartas, Yaudheyas and Madhyamikeyas are placed in Rajasthan. When the proud Maurya empire declined and its successors went down, one by one, before the onslaughts of the Kushanas and the Sakas, it was the Yaudheya *gana* (republic) that unfurled the standard of independence and with help of a few hundred tribes freed the whole of Northern India from foreign yoke. In the west the Malavas won equally resounding victories and founded the famous Malava Krita or Vikrama era.

Centuries later when the Arabs invaded India and carried their raids far into the interior of the country, plundering Broach, Bhinmal, Ujjain etc. Rajasthan served once again the cause of Indian independence. Our old ganas had by this time disappeared. But the same love of liberty still inspired the people. Rising under the leadership of the Prathira, Nagabhata I they hurled back the Muslim forces and laid down the foundations of an empire which gave the country peace and security and pinned down the Arabs to Sind. In the 12th century Vigraharaja IV drove back the Muslims across the Satluj. Prithviraja III would have long [illegible]

[illegible] that largely proved the

to V. A. Smith good examples of this style are the modern buildings of Bikaner palaces and institutions.

Sculpture

Sculpture has all along been in Rajasthan not a handmaid but the companion of architecture; the two together have made the Rajasthan buildings so beautiful. Stone carving is excellent; the images are distinguished by youthfulness and a vigorous modelling of the body, specially remarkable being the face which "absorbs the whole situation with telling awareness". An excellent specimen is the marble image of Sarasvati from Pallu (Bikaner), containing intense loveliness with a wonderfully expressed spirituality. Jaipur still has a professional class which turns out beautiful images of gods and goddesses according to the traditional ideas of iconography.

We have no early examples of paintings from Rajasthan. It is a pity, specially because even during the Hindu period Mewar appears to have been the centre of a western school of painting which in due course and with a few influences from outside grew into our Rajput school of painting Though patronised also by princes and *jagirdars*, it was essentially a democratic outgrowth. According to competent art critics, it was "largely a folk art, produced naturally by the people for their own pleasure and edification It was a reflection of the simple life of the Indian villager, his work and play, his religious ceremonies, his home life and above all the picturesque atmosphere of his creed" A large number of pictures dealt with the life of Krishna – Krishna with the *gopis*, Krishna's *rasa*[11], Krishna with his cows and cowherds, Krishna as the protector of Gokul against the ire of Indra And then there are representations of Ragas and Raginis, all characterised by a rich harmony of colours and passionate feeling The main centre of the school was Jaipur; but excellent work was turned out at other courts also, conspicuously perhaps at Bikaner which has a rich collection of these pictures

11. There is a beautiful specimen in the Palace Library, Jaipur

They could naturally have no desire to be replaced, imprisoned or assassinated

Feudalism

Both these checks went with the establishment of British supremacy The over centralisation of the British Indian Government, copied in all its defects by the States reduced the Panchayats to impotence, and equally bad, if not worse, were the effects of protection from disturbances internal as well as external, guaranteed to the rulers by the Paramount Power It removed the incentive to be good, to be efficient in one s own interests It led also to the crystallization of that half baked system of feudalism which had come into existence during the Muslim period, and become strengthened during the troublous times of the Maratha raids Like France of the period immediately preceding the French Revolution of 1789, Rajasthan governments endowed jagirdars with all privileges while freeing them from most of the duties which alone justified their existence and had rendered their governance bearable They now no longer furnished a stated quota of soldiers to the army Protection of the people and their protection was no longer their bounden or exclusive duty Yet they exacted all taxes, and all sorts of cesses, legal as well as non legal customary as well as arbitrary

In their heart of hearts the rulers knew that everything was not all right Some of them were far sighted enough also to introduce representative if not exactly responsible governments in their States But most looked with suspicion on the progressive movements sponsored by the people, with the result that their governmental and administrative machinery became more and more out of tune with the times The changes now introduced by the Constitution of the Republic of India gives Rajasthan once more its Vedic patrimony of democratic government realises Maharana Pratap s grand vision of Rajasthan as a great cultural unit, and raises hopes of a brilliant future in which it would march abreast with its sister States to the goal of Liberty Equality, Fraternity and Justice for all

fall of the greater part of Northern India. Rajasthan alone carried even thereafter her resistance to the invader, sometimes with success and many times also with failures but at no time with any defeatist mentality. With his great victories Maharana Kumbha foiled the imperial ambitions of the Muslim rulers of Gujarat and Malwa. Rao Jodha and Rao Bika founded dynasties that held back the Muslim advance from the Punjab. In the sixteenth century, Maharana Pratap fought with his small army against the vast hosts of the greatest Mughal Emperor, Akbar, and not unsuccessfully too, because he was fully representative of a whole people's will to be free. Rathor *Durgadas's reply to the bigotry of Aurangzeb* was the long Rajput war which sounded the knell of the Mughal empire and in which the Rajputs' final success was due to the fact that the whole of Rajasthan was fighting the righteous battle of freedom of worship and conscience.

Medieval Rajasthan Rulers

The Rajasthan rulers of this medieval period were by no means democratic. But they were no autocrats too. They were certainly more in touch with the people's needs, wishes and aspirations than the rulers of the British period. They felt as the people felt; they mostly did also what the people desired. Their native commonsense could easily tell them that thus alone they could best serve themselves and their people. They were no outsiders, no mere aliens that their interests should be different from the people's. The Dharmashastras too, of which many codes were compiled under their patronage, taught them that their greatest duty was to secure the welfare of the people.

And, besides, there were two other checks on their power. Along with the other parts of India, Rajasthan retained the Panchayat system of local government. Whoever the ruler or rulers may be, our small village states, as we may aptly call them, managed their own affairs. They had their own markets, their own blacksmiths, their own barbers, teachers, priests and traders. They had also their own judges, their own police and largely their own government. Secondly, with the salutary fear of revolts before them, if they went against the will of the people the rulers had perforce to behave themselves

Indian desert, and what we are required to do is only to follow minutely this line of demarcation i e, the Aravallis which are but the depressed and degraded relics of a far more prominent mountain system, and which 'stood in Palaeozoic times, on the edge of the Rajputana sea'[1] The disintegrated rocks which once formed part of the Aravallis are now spread out in wide red sandstone plains to the east which, topographically, are quite different from Western Rajasthan Moreover, there are noticed marked contrasts with regard to climatic and botanical characteristics of the area bounded on the west by the Aravallis Thus we can divide Rajasthan into three 'natural regions' possessing more or less homogeneous physical features arranged in order of increasing rainfall Western Rajasthan, Eastern Rajasthan and Southern Rajasthan Although the natural boundaries of these rainfall tracts seem to shade off into one another by imperceptible degrees, yet these regions as classified on the basis of the variability of the agricultural economic environment have, broadly speaking, distinctive characteristics

The Aravalli Range

The most striking feature about the physical geography of Rajasthan is the Aravalli range of hills which extends for about 430 miles and which intersects the country almost from end to end by a line running from south west to north east About three fifths of Rajsthan lies north west of the range, leaving two fifths on the east and south The region lying to the west and north west of the Aravallis is a wide expanse of wind blown sand, and comprises the sparsely populated Divisions of Bikaner and Jodhpur and also the Shekhawati portion of Jaipur Division With the exception of the sub montane districts of Jodhpur which lie immediately below the Aravallis this region is sandy ill watered and unproductive, improving gradually from a mere desert in the north west and west to comparatively fertile and habitable lands on the east This

1 Imperial Gazetter of India 1903 Vol I p 1

TOPOGRAPHY AND CLIMATE

by Dr R P Singh

Rajasthan lies between 23°3 and 30°12 North and 69°30 and 78°17' East, with a total area of 1,28,661 square miles It is roughly rhombic in shape The east west diagonal is about 540 miles long and the north south diagonal about 510 It is bounded on the west and north west by Pakistan Thence its northern and north eastern frontier marches with the Punjab and the United Provinces until it touches the river Chambal where it turns south eastward for about two hundred miles dividing the Jaipur and Kotah Divisions from Gwalior The southern boundary runs in an irregular zigzag line across the central region of India, dividing Rajasthan from Madhya Bharat Union and Gujarat

Boundary Arbitrary

Any boundary chosen to demarcate 'natural regions within a province or country, where sharp contrasts of configuration and structure are not many, has the disadvantage of being rather arbitrary and any demarcation or mapping which aims at establishing definite boundary lines is bound to be mislead ing and mistaken, for regions do not come to an abrupt and like political frontiers, except in very exceptional cases One system of agriculture or land shades into another and there fore, what we have to look for is what may be termed the 'gradient of transition between zones never mutually exclusive but always over-lapping in greater or less degree However, for purposes of convenience in classification and description, the use of the boundary for partitioning the various climatico botanical regions is legitimate

Three 'Natural Regions

Fortunately, however, the hand of Nature has defi [illegible] the boldest characters, the eastern geographical limits [illegible]

desert to become a powerful sand blast It rubs smooth rock floors removes pebbles from one place to another, opens out joints and crevices and etches cliff faces into fantastic shapes And where the wind driven sand encounters an obstacle, there a dune is generally built, a chain of dunes, a sea of dunes, a vast ocean of dunes, with a spume of sand blowing from the wave crests in place of a spume of white foam Sometimes the dune ocean moves, and along with it there is the dreadful inevitability of the choking of wells, the over whelming of the oases, and the burying of the passing caravans

Sand Dunes

In this way the south west winds have transported inland clouds of dust and sand particles, derived in a great measure from the Rann of Cutch and from sea coast, and in part also from the basin of the Lower Indus, and have created sand dunes of gigantic size Moreover, there is but little rainfall in Rajasthan and consequently there is no water action to carry off the detritus to the sea which has hence gone on accumulating year after year

A certain proportion of the desert sand is also derived from the weathered debris of the rocky prominences of this region, which are subject to great diurnal as well as seasonal alternations of temperature, charateristic of all arid regions Here it should be noted that the Aravallis are the oldest mountain range of India and the denudation of the main range as well as of the off shoots has gone on for a very long period of time Dr D N Wadia has correctly observed 'The rocky prominences which stand up above the sands belong to the older rocks of [illegible] ed outcr[illegible] graphy, s[illegible] phenomena of desert erosion '[3]

The daily variation of heat and cold in some parts of Western Rajasthan often amounts to more than 100° F in the course of a few hours The seasonal alternation is greater This leads [illegible]

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[3] D N [illegible]

natural division characterised by aridity is styled as Western Rajasthan[2].

'The Region of Death'

About seventy per cent of Western Rajasthan is part of the '*Maroosthali*' or 'the region of death' (the emphatic and figurative phrase for the desert) which, according to ancient geography, extended from Aravalli hills in the east to Indus valley in the west[3]. All this territory is incumbent upon a sand-stone formation. Over much of this tract, in the dim past are supposed to have flowed the waters of the Indian Ocean. Indeed, in many parts of Jaisalmer district and in some parts of Bikaner Division there still remains the illusion of a tide recently gone out, but forgotten to return, leaving great stretches of thirsty, flat rock gasping in the sun light. That, at least, would appear to be the evidence of such a place-name as Chatra dhara[4] near Harsh village in Sikar district. Overlying this ancient bed of a great primaeval sea are ranged sand-dunes from 20 to over 100 feet high, in systematised curves, moving in slow procession in obedience to the westerly winds.

Origin of the Desert

The origin of the desert may be attributed to a long-continued and extreme degree of aridity of the region combined with the sand drifting action of the south-west winds, which sweep through Rajasthan for several months of the year without precipitating any part of their contained moisture. Here it will not be uninteresting to study how winds work as sculpturing agents and help in the formation of deserts. In the absence of any moisture or vegetation to fix the soil, a wind of even moderate force soon catches up enough grit in the

2 Vide Census of India 1931 Vol XXVII, p. 1

3 See Tod, Annals and Antiquities of Rajasthan (Calcutta 1894) Vol II, p 281 Cf For 300 miles this desert extends between the Aravallis and the Indus and hot and desolate (… Gazetteer, Vol I p 33)

4 Etymologically, it means the confluence of four streams

two natural regions Southern Rajasthan and Eastern Rajasthan Southern Rajasthan comprising the Division of Udaipur, receives the heaviest rainfall It has long stretches of forest where fuel and fodder are relatively abundant Eastern Rajasthan includes the Divisions of Jaipur and Kotah From the standpoint of average annual rainfall it stands midway between Southern and Western Rajasthan

The western and north western parts of Bikaner Division lie within the Great Desert', and its southern and eastern portions form part of the vast sandy tract known as the 'Bagar The northern and the north eastern corners are the least infertile sections The general aspect of the country side is, however, dreary and desolate in the extreme The surface is for the most part covered with undulating sand hills from 20 to over 100 feet high and the aspect presented by the sand hills resembles that of the series of magnified wind ripples In 1808 Elphinston who passed through Bikaner State, wrote ' Within a short distance of the capital the country was as waste as the wildest part of Arabia but during and just after the rains it wore a very different appearance i e it became a vast green pasture land covered with the richest and most succulent grasses "

Jodhpur Division

Similarly Jodhpur Division is sterile sandy and inhospitable It is a dreary waste covered with sand hills, rising sometimes to a height of 200 or 300 feet, and the desolation becomes more absolute and marked as one proceeds west wards The desert in the west and north west of the Division is known as Thal in which it has been truly said 'there are more spears than speargrass heads and blades of steel grow better than blades of corn The country here resembles an undulating sea of sand an occasional oasis is met with, but water is exceedingly scarce and often 200 to 300 feet below the surface The sub montane eastern districts and some central portions of the Division however are comparatively fertile

8 Imp Gaztt of India Vol VIII p 203

the rocks producing an abundance of loose debris, which there is no mechanical or organic (or humus) action to convert into a soil cap.'[6]

As is true of other desert regions, the Indian desert landscape also holds for a new-comer an element of terror because of the starkness, abruptness and unfamiliarity of its outlines. The desert, however, is not one flat level waste of sands, but there are numerous rocky projections of low elevations in various parts of it, and its surface is further diversified by the action of the prevailing winds which have heaped up the sands in a well-marked series of ridges, dunes and hillocks.

Sandy Deadlands

The country to the east and south-east of the Aravallis affords a striking contrast to the sandy deadlands of the north-west of the range which, it should be noted, has acted as a great check to the extension of the desert. But for this impediment, Central India, too, would have been submerged in sand. This is proved by the fact that wherever there are passages or depressions in the range, the floating sand-clouds from the west are wafted through, or over, and form a little thul even in the bosom of fertility, and thus 'not at once, on the east of the Aravallis does the desert relinquish its sovereignty'.[7] Because of this encroachment of the desert, Tod was quite justified in demarcating Marwar and Mewar botanically on the basis of this couplet:

'Anwal, anwal Mewar, Bambul, bambul Marwar'.

This means that wherever we find 'Anwal' – a yellow-flowering shrub—there the land is not very infertile, and where we find 'Bambul' – Acacia, another child of the sand – there the land is characterised by great infertility.

The country to the east and south-east of the Aravallis is blessed with wide vales, fertile table-lands and great breadths of excellent soil. This area may, however, be subdivided into

6. Ibid., pp 291-2

7. A. W. T. Webb, These Ten Years—A Short Account of the 1941 Census operations in Rajputana and Ajmer-Merwara, 1941 – p

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8 Imp Gazt of India Vol VIII p 203

Towards the south we find several small off-shoots of the Aravallis which do not permit the extension of cultivation.

Jaisalmer

Jaisalmer district is almost entirely a sand-drifted waste. It is also covered by sand-dunes of the transverse type, that is, with their longer axes at right angles to the prevailing winds. In the neighbourhood of Jaisalmer town", and within a circuit of about forty miles, the soil is very stony, and numerous low rocky ridges and hard undulating plains occur; but with this exception the general aspect is that of an interminable sea of sand-hills of all shapes and sizes, some rising to a height of 150 feet. Locally the shifting sands are termed 'Dhrians'. In the dry season the tract is sparsely clothed with stunted shrubs and tufts of coarse grass and in many respects resembles the wildest parts of Arabia. Nothing can well bear a more desolate appearance.

The semi-arid tract of Sheikhawati slopes gently northwestward from the base of the rugged, bärren hills towards the Jodhpur and Bikaner Frontiers[10], and is drained by the Kantli and other minor streams which disappear into the sands within the confines of Jhunjunu and Sikar districts.

The villages within the desert, though always known by local names, cannot be reckoned as fixed habitations, for their permanence depends entirely on the supply of water in the wells which is extremely scarce and deep Moreover, it frequently fails or turns brackish. As soon as the water gives out, the village must shift. The paramount importance of water supply in such a region can be easily understood by the fact that wherever villages have sprung up, they have generally

9. Tod has written, "Jaisalmer town is, in fact an oasis, everywhere insulated by immense masses of 'Thul' some of which are 10 miles in breadth, without the trace of man, or aught that could subsist him". op/cit, p 283 'Thul' is the general term for the sand ridges of the desert

10 Records of the Geological Survey of India, Vol LIV, Pt 1 Calcutta, 1923, p. 318

received a name ending in 'sar', 'sara', 'kor', par', or 'tala', all denoting a well[11].

Rivers

Rivers play a very subordinate part in moulding the surface features of the region. The only river of any consequence in Western Rajasthan is Luni ('salt river', the Lonawari or Lavanavari of Sanskrit writers) which flows for about 200 miles from the Pushkar valley to its embouchure in the great western salt marsh – the Rann of Cutch. It receives the drainage brought by the mountain torrents down the western slopes of the Aravalli hills between Ajmer and Abu, and is a veritable blessing to the southern parts of Jodhpur Division. There is a saying in Marwar that about half of the agricultural produce of the country is the gift of the Luni. Here there are as many as seven other streams, *viz.*, the Lilri, the Raipur Luni, the Guhiya, the Bandi, the Sukri, the Jawai and the Jojri, but all of them are quite useless as they are mere rain gutters. In addition to the three important lakes at Sambhar, Didwana and Pachbhadra there are a few other Jhils or marshes, notably one near Bharkimi in the south west of Jodhpur Division, which covers an area of 40 or 50 square miles in the rainy season and the bed of which, when dry, yeilds fairly good crops of wheat and gram.

Towards the north of Western Rajasthan there are two other rivers, the Ghaggar and the Kantli. The former once flowed through the northern part of Bikaner State, and, according to Tod, joined the Indus, but it is now dry, except in the rains and even then the water rarely flows more than a mile

11 A W T Webb op cit p 7 Also see Tod 'Of the numerous terms used to designate water in these arid regions as par, sar, tir, de or dar, bah, bawa, rah, all but the latter are chiefly applicable to springs or pools of water while the last (rah) though used in a like sense applies more to a water course or stream' op cit, p 231

or two west of Hanumangarh.[12] Similarly, in years of good rainfall Kanth river flows for a few miles only.

In contrast to the sandy plains which are, generally speaking the uniform feature of Western Rajasthan, the southern and eastern divisions of Rajasthan have a diversified character. As we have seen, wind blown sand always lies conspicuous on the northern slopes of the long straight lines of rocky ridges but on the southern and southeastern sides the desert aspects of Rajasthan are gradually lost, merged in the comparatively fertile forest clad high lands of peninsular India. Southern Rajasthan contains extensive hill ranges and long ranges of rocky world and wood land. In many parts there are fertile table lands. Whereas the descent of the western slopes of the Aravallis is abrupt towards Jodhpur, on the *eastern* or Udaipur side the land falls very gradually as it recedes from the *long parallel ridges* which mark the water parting until it spreads out and settles down into an open champagne. The whole of the region is watered by the drainage of the Aravalli hills, carried north eastward by the Banas and Chambal rivers.

Central Mewar

Rich in variety of rock types as it is, a considerable portion of Central Mewar is essentially an elevated plain either entirely bare and rocky with granitic exposures or more or less covered with low scrubby vegetation. The plain lies on an average, at about 1,500 feet above sea level, sloping with a steady and moderate gradient to the east or north east. In this plain two important *topographical* variations are noticeable, in the north east the extensive flat country has got a *soil mantle* of varying thickness whereas the *rugged region* forming the northern hill tracts has got a preponderance of granitic intrusives.

12 There is incontrovertible evidence that the drying up of the lower reaches of the Saraswati (Ghaggar) is to be attributed merely to the northward march of the Rajputana desert. See article on the Saraswati published in Science and Culture, Vol 12 11 473 474

The south west portion of Udaipur Division embraces the widest spurs of the Aravallis, and presents a strong contrast in topography to the plains of the north. The country in the south is extremely rugged, it presents 'a tangled wilderness of shallow valleys with veritable networks of narrow *nalas* and deep gorges and is a typical dissected peneplain'[13]

The junction of the rocky and rugged region of the south, and the flat, more or less alluvium covered expanse of the north marks a very definite water shed, a section of the great water shed of India. With a height of over 1,600 feet above sea level it extends from the vicinity of Udaipur city to the Mewar Partabgarh frontier on the south east, a distance of over fifty miles. To the immediate north of this, the plain is drained by the tributaries of the Berach, while to its south, the highly dissected rocky region is drained by the network of streamlets converging towards the great artificial Dhebar lake or Jai Sagar, and farther south drainage is to the Jakham and Som, near the southern border of the area. The surplus waters of the Dhebar lake flow into the Som, which after absorbing the Jakham replenishes the Mahi. Thus while the water of northern plains ultimately reaches the Bay of Bengal by way of the Banas, the Chambal, the Jamuna and the Ganges, that of the southern tracts discharges finally into the Gulf of Cambay through the Som and the Mahi.

Rugged Hills and Rocks

The western portion of Banswara district is comparatively open and well cultivated, whereas the southern and eastern portion is covered with rugged hills, rocks, scrub jungle and wood land. The country has been described as the most beautiful portion of Rajasthan. It looks best just after the rains when 'the varied hues of the foliage the luxuriant growth of the tall grasses, and the streams dashing down the hill sides or pushing through shady glens between banks fringed with ferns and flow...

1[3] ... The ... of ... in Mewar Calcutta 1934 p 103

14 Imp Gazt of India 1908 Vol. VI pp 407-8.

or two west of Hanumangarh[12]. Similarly, in years of good rainfall Kanth river flows for a few miles only

In contrast to the sandy plains which are, generally speaking the *uniform feature of Western Rajasthan*, the southern and eastern divisions of Rajasthan have a diversified character As we have seen, wind blown sand always lies conspicuous on the *northern slopes of the long straight lines of rocky ridges*, but on the southern and southeastern sides the desert aspects of Rajasthan are gradually lost, merged in the comparatively fertile forest clad high lands of peninsular India Southern Rajasthan contains extensive hill ranges and long ranges of rocky world and wood land In many parts there are *fertile* table lands Whereas the descent of the western slopes of the Aravallis is abrupt towards Jodhpur, on the eastern or Udaipur side the land falls very gradually as it recedes from the long parallel ridges which mark the water parting until it spreads out and settles down into an open champagne The whole of the region is *watered by the drainage of the Aravalli* hills, carried north eastward by the Banas and Chambal rivers

Central Mewar

Rich in variety of rock types as it is, a considerable portion of Central Mewar is essentially an elevated plain either entirely bare and rocky with granitic exposures or more or less covered with low scrubby vegetation The plain lies, on an average, at about 1,500 feet above sea-level, sloping with a steady and moderate gradient to the east or north east In this plain two important topographical variations are noticeable, in the north east the extensive flat country has got a soil mantle of varying thickness whereas the rugged region forming the northern hill tracts has got a preponderance of granitic intrusives

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13 Mer[illegible] pt 2 The Geology of Central Mewar Calcutta 1924 p 103

14 Imp Gazt of India 1903 Vol VI pp 407 8,

In Dungarpur district the country is fairly open in the south and in the east. Otherwise, it consists, for the most part, of stony hills covered with a low jungle of cactus and jujube trees.

The important rivers in Southern Rajasthan are the Banas (Hope of the Forest), the Chambal, the Mahi, the Berach and the Kotari. The Banas rises in the Aravalli hills in Udaipur Division, and after a tortuous course of about 300 miles falls into the Chambal which is also noted for its sinuosity. The Mahi (the Mophis of Ptolemy and Mais of the Periplus) enters Southern Rajasthan, and flows in a northerly direction with a somewhat tortuous course, till it reaches the Udaipur frontier where it is soon turned by the Mewar hills to the south-west. Among unimportant rivers we can include the Airan, the Chap, the Jakam, the Majam, the Vatrak, the Bhadar, the Moran, etc

Although the surface of Eastern Rajasthan is crossed and diversified by groups and ranges of hills by isolated peaks and by elevated table-lands, yet many parts of this region are fairly level and open Towards the west the region consists in a great measure of broad, open, treeless plains, and in the east and south-east the region is mostly covered with alluvium and bush jungles.

Central Plain of Jaipur

Curving round the north of the central plain are the intricate ranges forming the Shekhawati and Torawati hills, and the wild country extending along the Alwar border from Torawati as far south as Jaipur city. The southern portion of the plain is open but traversed by several low interrupted ridges with a general N E – S W trend and dotted with various clusters of hills and isolated summits.

Rocky Ridges of Alwar

Throughout the district of Alwar ridges of rocky and precipitous hills for the most part parallel, are observable. These generally run from south to north and are a continuation of the Aravallis. The highest peak is 2,512 feet above the level of the sea, and the hills decrease in height and breadth from south to north, and from west to east. In the north and in the east the country is comparatively open and fertile.

The general aspect of Bharatpur district resembles an alluvial plain, fairly wooded and cultivated, with detached hills in the north and hilly and broken tracts in the south. The highest hill in the State is in the west. The central portion is a level tract.

The eastern most portion of Jaipur Division is open and level, but here also we find low hills or ravines. A range of sand stone hills runs from near Dholpur city in the south-westerly direction, attaining at one place an altitude of 1,171 feet above sea level. These hills, as well as those farther to the west, are mostly bare of vegetation and rocky. The tract along the Chambal is termed as the Dang, and is deeply intersected by ravines, some of which are 100 feet deep. Some portions are covered with the alluvium of the Chambal which has excavated a broad valley through an extensive plateau formed of nearly horizontal upper Vindhyan sand stones.

The northern and south eastern portions of Tonk district are flat and open, with here and there a ridge of rocky hills covered with scrub jungle. The country to the south west is high table land.

In Kotah Division the country slopes gently north wards from the high table land of Malwa An important feature of the landscape is the Mukandwara range of hills (1,400 to 1,600 feet above sea level) running from north west to southeast We find a curious double formation of two separate ridges parallel at a distance of more than a mile, the interval being filled with dense jungle or, in some parts, with cultivated lands In some places the bare protruding rock presents not a trace of vegetation

The district of Bundi is traversed throughout its whole length from south west to north west by a double line of hills which divides the country into two almost equal portions The highest peak of the range is 1,793 feet above the sea level.

A narrow range of low and fairly wooded hill runs south-east past the town of Jhalrapatan (Jhalawar district) The southern portion is genrally hilly and intersected by small streams The rest of the country, however, though rising in some places to more than 1,000 feet above sea-level, is a rich undulating plain

The two principal rivers of this region are the Chambal and the Banas The former collects the water of several large streams flowing northwards from the skirts of the Vindhyas, and so much of the drainage of the Mewar plateau as is not intercepted by the Banas Among other rivers are the Banganga, the Dain, the Mashi, the Dhil, the Galwa, the Morel, the Bandi etc Almost all the minor streams are dry during the hot months

Climate

The climate throughout Rajasthan, except in the high hills, is very dry and hot during the summer, while in the winter it is much colder in the north than in the south, especially in the northern and western parts of Bikaner Division where there is sometimes hard frost at night The seasons are well marked

During the summer season hot winds and dust storms are experienced more or less throughout the territory In the

sandy, hill desert tracts of Western Rajasthan they are violent, but in Southern and Eastern Rajasthan they are tempered by hills, verdure and water. The air movement increases in intensity with the advance of the summer season, and is strong and vigorous in April and May

The chief normal features of the weather during April and May are the excessive dryness of the air, high temperature and hot dry westerly winds In the desert and semi desert tracts the heat and glare of the sun, the wafts of suffocating heat reflected from the hard back ground or from walls compel all out door life to cease while the sun is above the horizon, and interiors are only kept bearable by shutting all windows and doors to keep out the stifling heat In other parts of Rajasthan it is not so hot Nights are generally cool and pleasant

Range of Temperature

The diurnal range of temperature in often great The heat thrown off rapidly by the sandy soil, passes freely through the dry air, so that at night water may freeze in a tent where the thermometer marked 90° during part of the day The minimum temperature in January west of the line joining Delhi, Jaipur and Bali sometimes falls below 30°F During the period of ten years (1920 29) the total number of occasions when the minimum temperature in the open fell below 30°F in different parts of the territory was 50, and the number of days in January when the minimum temperature in the open may be expected to fall below 30°F is from 1 to 5

The following table gives the average maximum and minimum temperatures (in degrees F.) at selected observatories for the whole of the year —

Observatory	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Shri Ganganagar	69 3 36 3	72 0 46 9	82 0 50 5	93 9 62 1	106 0 71 8	109 2 62 8	99 3 81 4	101 1 81 3	93 3 74 1	93 5 58 5	83 5 48 5	70 3 37 3
Bikaner	73 8 39 3	76 7 52 6	83 4 58 3	97 3 70 1	107 8 83 7	109 6 86 6	98 9 81 3	98 4 79 5	98 3 78 0	95 7 62 8	86 6 50 9	72 1 40 1
Jodhpur	77 5 49 8	81 7 57 0	89 6 61 9	101 6 74 0	107 4 81 3	106 4 81 7	95 0 80 0	91 8 77 6	95 6 77 9	96 1 67 7	89 9 61 3	75 8 50 7
Barmer	77 5 49 5	80 9 56 7	89 0 63 5	100 8 74 8	106 5 78 5	105 3 80 4	94 8 79 3	93 1 75 8	94 1 75 8	96 4 69 7	90 2 62 8	7 0 50 8
Jaipur	73 6 44 0	77 4 54 8	85 0 57 1	96 6 69 3	105 3 78 5	105 4 82 3	90 8 76 9	92 3 75 1	91 7 73 7	92 5 63 6	85 2 56 2	71 3 45 5
Kotah	78 5 47 3	83 9 57 3	90 5 61 5	101 2 74 1	108 7 81 8	106 0 86 5	90 3 77 7	89 8 77 9	92 1 76 6	95 0 68 0	88 9 60 2	77 5 48 6
Brijnagar	78 5 43 1	81 6 56 0	90 5 58 9	100 1 71 4	108 0 80 6	103 7 82 8	87 9 75 8	86 9 71 6	89 3 73 5	91 8 62 2	88 0 55 2	78 2 45 6

Variability

Another characteristic feature of the climate of Rajasthan is its great variability with regard to humidity In Southern Rajasthan the air is sometimes almost saturated during a spell of very wet weather in the rains, and the relative humidity is as high as 97 But when a hot wind is blowing, such as is common in April and May, it is frequently less than 20 in Eastern and Western Rajasthan, and has been known to fall to 3

Unequal Rainfall

Rainfall in Rajasthan is very unequally distributed The western side of the territory comes very near the limits of that part of Asia which belongs to the ' rainless area ' of the world, though even on this side the south west winds bring annually a little rain from the Indian Ocean In Western Rajasthan, however the rainfall scarcely averages more than 12 inches because extensive heated sandy tracts have to be crossed by the rain clouds which are thus emptied of much of their moisture The hill ranges in Kathiawar and the nearer slopes of the Aravallis are in an advantageous position in this respect The wind must be very strong and the clouds very full, if the rain is to fall in the arid tracts of Western Rajasthan In Southern Rajasthan, which is more directly reached by the moisture laden winds the rainfall is much more In the south eastern parts of the region the land gets not only the rains from the Arabian Sea but also the remains of rains which come up from the Bay of Bengal Here, therefore, rainfall is more certain than in other parts of Rajasthan In Eastern Rajasthan however, the periodical supply of rain is variable If the eastern winds are strong they bring good rains from the Bay of Bengal whereas if the south west monsoon prevails the rain is comparatively late and light " Most of the rainfall is received between the second half of June and the first half of September

Western and Eastern Rajasthan get a scanty share of the winter rains of Nothern India, but Southern Rajasthan usually gets none at all, beyond a few gentle showers in the last week of December or the first week of January. Small in amount though the winter rain is, it is of the greatest importance to the Rabi crops of Rajasthan, and great distress is caused by its occasional failure. The comparative lightness of the fall increases its value inch for inch as run-off is slight and a high proportion is available for crops;

THE INHABITANTS

by Jethmal Joshi

Ethnologically the people of India are generally divided into seven main physical types

1. The Indo-Aryan,
2. The Scytho Dravidian;
3. The Aryo Dravidian, or Hindustani;
4. The Mongolo Dravidian or Bengali.
5. The Mongoloid,
6. The Dravidian, and
7. Negritos of Andaman Islands

Of them, broadly speaking the first and the third groups may be said to be found in Rajasthan The Indo Aryan group is widely spread over Rajasthan The Rajputs, the Khattris and the Jats of Rajasthan belong to this group They are in fact the well known traditional Aryan colonists of India, inhabiting at present the greater portions of Kashmir, East Punjab and Rajasthan

The other group found in some parts of Rajasthan is the Aryo Dravidian or what is commonly called Hindustani, " and is represented in its upper strata by the Hindustani Brahman and in its lower by the Chamar" (Imperial Gazette of India 1909) It is now universally admitted that this type is the result of the inter mixture in varying proportions of the Indo Aryan and Dravidian types

But the pure Dravidian element is by no means absent in Rajasthan The Bhils are the oldest inhabitants of Rajasthan and have most of the Dravidian features A typical Dravidian is black in colour and has the nose of the African negro The Dravidian stock is practically absent in the northern portions of Rajasthan but in the South in the neighbourhood of the Aravallis it exists in a large number

Population, Size and Growth

Ths *total population of* Rajasthan according to the census of 1941 was 1,33,18,563, out of which 69,88,507 were males and 63,30,056 females. Thus there were about 906 females per 1000 males in Rajasthan. This was in 1941, and by this time the population of Rajasthan might be in the neighbourhood of 15 millions. A peculiarity about the population growth of Rajasthan is that it is not uniform from decade to decade. In 1881, the total population of Rajasthan, exclusive of the 1,66, 343 Bhils only enumerated by houses, was 1,01,02,049. Since then the population received a set-back in 1901 and again in 1921, with the result that in the period 1901-1941, the percentage increase of population was only about 7%. As the Census Superintendent of 1931 observed, "the variations from census to census resemble mighty swings of Nature's *pendulum*". While *in 1899-1900 the "Chappania Kal"* had its say in the population decrease, an epidemic of plague did its work just before the census of 1921.

The density of population in 1941 was, 103 persons per sq. mile, which was less than half of India as a whole and less than 1/7th of that of Bengal. But these density figures are based on two extremes, the densely populated cities like Jaipur with 7032·4 persons per sq. mile and thinly populated tracks like Jaisalmer with 6 souls per sq. mile. The density of *population according to* natural regions was 63 for the western dry area, 177 for eastern region and 147 for southern region.

Communities

According to the census of 1941, in Rajasthan (including Palanpur, Danta and the whole of Sirohi) was as below, the numerical strength of each commnity:—

Hindus	....	 1,03,17,505
Muslims	....	... 12,97,811
Jains	....	 3,41,788
Christians	....	 5,911
Tribes	....	 16,21,488
Others	....	 82,315
	Total	 1,36,70,208

Thus the Hindus form the majority about 75% of the total population of Rajasthan But Hinduism is a very big term since it is honey combed with races, castes and sub castes And if we add other communities with their minute branches, the people of Rajasthan will present the spectacle *of a veritable* museum ' It would seem incredible", observed the Census Superintendent of the Province, in 1931, "that such a comparatively small population should contain so many tribes tribes, castes or races'

Next to the Hindus, in number, are the tribes forming about 12% of the population While the Muslims and Jains are 9 5 and 2 5 per cent respectively of the total population, the Christians and Sikhs is less than even 1%

The census of Rajputana in 1931 enumerated 150 castes and sub castes of the Hindus This sub division into castes, and especially sub castes is very flexible, but the main castes are Brahmans, Rajputs, Mahajans, Chamars, Minas, Gujars, Jats, Ahirs Hindu Bhils, Thakurs Balais, Sondhias and others Similarly the Muslims consist of Shaiks, Pathans, Meos, Mughals Sayyads and *others* Many sub castes are "marginal between the Hindus and Muslims as we shall presently see

Rajputs

The Rajputs are undoubtedly most influential in the social structure of Rajasthan and before integration they were the ruling class in 19 out of the 23 States and chiefships of Rajputana and Ajmer Merwara But their influence is non politically at least on wane these days The Rajputs them selves are divided into numerous castes and sub-castes They no where form a majority of the population, they are strongest [illegible]

[illegible] the Kachhwahas in the Jaipur Division, the Sisodias in the *Udaipur Division* while the Haras in south eastern portions of Rajasthan There are *other* unimportant clans also These Rajput clans are the aristocracy of Rajasthan and

Population, Size and Growth

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Muslims		12 97 811
Jains		3 41 789
Christians		5 941
Tribes		16 21 488
Others		82 315
	Total	1,36,70,208

Jains

By far the most well-known in India are the mercantile castes of Rajasthan. Most of these belong to the Jain community. Some of them may be of Rajput extraction, though separated by difference of profession and worship from the clans. The whole of the trade and commerce of Rajasthan is in their hands.

Jats and Gujars

In the lower social starata come the agricultural tribes of whom the principal ones are the Jats and Gujars, mostly found in the northern and north eastern parts of Rajasthan The Jats, actually, belong to the Rajput stock. Both social and physical characters are those of a comparatively homogeneous community which has been but little affected by crossing with alien races Even now Rajputs and Jats occasionally intermarry, the Rajputs taking wives from the Jats, but refusing to give their own maidens in return. What is the exception today is said to have been the rule in earlier times In the eastern portions of Rajasthan the Ahirs, Loahas, Kachhis, Malis and Chamars also cultivate land widely South of the Aravallis, we find the Kunbis, and Sondias as cultivators, immigrants from central and southern India; and in the South West corner, we meet with the Kolies, so common in Gujrat.

If we come to another community, the Muslims, we find that it no where forms a majority. It is found in a substantial number in Alwar, Bharatpur, Jaisalmer, Tonk and Bikaner.

Tribes of Uncertain Origin

But more important and interesting as well are the tribes of uncertain origin, and other aborigines There are many clans which are on the border lands of Hinduism and Muhammadism In fact, the special feature of Islam in Rajasthan is to be found in the clans or indigenous tribes who have been converted to the faith; such are tht Khanzadahs, the Khaimkhanis, the Meos, the Merats, and the Sodhas.

they hold a greater portion of land either as receivers of rent or as cultivators The Rajput is very proud of his warlike reputation

The Rajputs have a cultural heritage of their own They have their warlike customs and are most punctilious on points of etiquette

The law of primogeniture exists among them But the custom of equal division of inheritance is more or less in force among the Rathors of Mallani, among the Shaikhawat sept of the Kachwahas, and in certain other tribes Moreover, the marriage customs are strictly exogamous, a marriage within the clan being regarded as incestuous, thus, each clan depends on the other clans for its wives, for, of course, no Rajput can take a wife elsewhere than from Rajputs This custom has powerfully affected the sex ratio among the Rajput clans The Census Superintendent of Rajputana in 1931 observed "*Where a particular clan dominates all others in a State*, as is the case with the Rathors in Bikaner and Marwar, and the Kachwahas in Jaipur, the law of exogamy has the effect of showing a comparative deficiency in females in the parent State and an excess in the neighbouring one Thus in 1931 there were only 580 female Shekhawats for every 1000 malen in the northern part of Jaipur State

Brahmans

Like the Rajput, the Brahmans are also nfluential is Rajasthan Although most of them are illiterate and superstitious, religion as the source of their livelihood has fallen on evil days The Brahman has not lost his sense of superiority in social scale, although he takes to the plough and works under a Bania. With the Brahmans may be classed the peculiar and important caste of Charans or Bhat, the keepers of secular traditions and of the geneologies They sometimes hold small grant of land but there services are at a discount these days

Hindu festivals of the Dashera, Dewali and Holi. Their marriages never take place in the same "gotra", and their daughters cannot inherit They call their children indiscriminately by both Muhammadan and Hindu names They are almost entirely uneducated, but have bards and musicians, to whom they make large presents They have no scruples about getting drunk They are very superstitious, and have great faith in omens The dress of the men and women resembles that of the Hindus Like the women of low Hindu castes they tattoo their body (a Hindu custom obnoxious to Muslims) The men often wear gold ornaments, but the women are seldom or never allowed to wear them The women who are not kept in seclusion do more field work than men

Similar is the origin of the Merats According to M A, Shering, author of "Hindu Tribes and Castes", Merats are the degenerate Mahomedans of Merwara, who originally sprang from the Hindu Meos They are at present numerically insignificant and are found in Marwar, Mewar and Ajmer Merwara They have left following their ancient Hindu customs and have come closer to Islam They have abjured the flesh of the wild hog have begun to adopt 'nika' marriage to seclude their women, and to intermarry with persons within degrees prohibited by their ancient customs

Thus all the above Muhammadan bodies have both Hindu and Muslim customs and manners

Minas

There are some other tribes of Rajput origin Of these tribes an important one is that of the Minas or Mainas, found chiefly in Jaipur and Mewar, and also in Alwar The Minas of Jaipur and Alwar regard themselves superior to the other groups of their tribe, neither inter marrying nor eating with them They are either agriculturists or 'Chaukidar's or watchmen, the latter regarding themselves superior to the former from whom they take, but do not give, daughters in marriage The Minas are not regarded as untouchables The Rajputs eat and drink from their hands On every occasion in Jaipur,

Khanzadahs and Khaimkhanis

The Khanzadahs are numerically insignificant and found only in Alwar and in the north of Jaipur. They are descendants of a group of families of uncertain origin, who were the old rulers of Mewat during the 16th century. Their principal chief fought on the Rajput side against Babar in 1628 Politically a nonentity, they are far above the Meos in social rank, and, though, probably of more recent Hindu extraction, are better Musalmans They observe no Hindu festivals, and will not acknowledge that they pay any respect to Hindu shrines But Brahmans take part in their marriage contracts, and they also follow some Hindu festivals Though generally as poor and illiterate as the Meos, they unlike the latter, say their prayers and do not let their women work in the fields. They work in the fields, take to military service and have also taken to trade

Similarly the Khaimkhanis are mostly found in Alwar and Jaipur They were, originally, Chauhan Rajputs and were converted to Islam.

More interesting than the Khanzadahs and Khaimkhanis, in regard to customs and manners, are the Meos of Alwar and Bharatpur They were originally Hindus, and became Muhammadans at the *time of Mahmud of Ghazni in the 11th* century During the Muhammadan period of power they were notorious for their turbulance and predatory habits. Later they were broken up and have since become generally well-behaved. Their origin is still obscure They themselves claim descent from the Rajput races of Jadon, Kachhwaha, and the Tunwar. But according to Major Powlett there are grounds for believing that most of them spring from the same stock as the minas The Meos have a mixture of both Muhammadan and *Hindu custom They practise circumcision,* "nika" marriage and burial of the dead Brahmans take part in the formalities preceding a marriage, but the ceremony itself is performed by the "Kazi". Their village deities are also the *same* as those of Hindus On the one hand they observe Muharram, 'Id or Shab *i-barat,* and *on the* other the

Gadia Lohars

One peculiar Hindu sect which has roused considerable interest in recent years is that of 'Gadia Lohars' of Rajasthan The people belonging to this sect lead a gypsy life and are blacksmiths as the very term of 'Gadia Lohars' suggests They never settle down at a place permanently but move from place to place with their bullock carts Their bullock-carts, in fact, may be regarded their moving houses Everything—utensils, clothes, beddings, cots, tools, etc —they carry on their carts They can be seen in outskirts of a town, or near a well in a village, preparing knives, tongs, scissors and such ordinary things of household use Their manners and customs and marriage ceremonies are practically the same as those of lower caste Hindus In 1941 the total strength of these gypsies in Rajasthan was 6793, and 6970 in the whole of the then Rajputana Agency Out of these Marwar, Mewar, Bikaner and Jaipur showed the largest number—2002, 1091, 1010 and 650 respectively No Gadia Lohars were found in Jaisalmer, Bharatpur, Dholpur and Tonk About 19% of these people have now settled down and have left the life of a gypsy But the Gadia Lohars hate and look down upon those who have abandoned their traditional custom and have settled down permanently

The origin of these Gadia Lohars is still obscure A W T Webb tried his level best to make out of the legends and customs that prevail among these gypsies but could not get a connected account (See A W T Webb 'These Ten Years', Appendix B, pp 125 187) One source of their origin, which is a popular theme with the poets of Rajasthan, is that those Gadia Lohars were formerly ordinary persons and took part in the well known historic battle of Haldighat on the side of Rana Pratap against the Emperor Akbar When Rana Pratap was defeated and had to wander from place to place, these persons also took a vow, in sympathy with their Lord, that they would never lead a comfortable, settled life unless Chittor

a Mina performs the ceremony of "tika" or investiture of the new chief.

There are other wilder sects of Minas inhabiting the wild regions of Sirohi and some portions of Mewar.

The Meos, form another tribe of mixed origin, claiming descent from Rajput chiefs who took Mina wives. But mostly they inhabit Merwara.

Girassias and Rawats also belong to primitive tribes The Girassias, according to Sherring, are descended from Chauhan Rajputs, who inhabited the country before the Sisodias conquered Chittor. They have forsaken their Rajput customs and are now a wild race associated closely with the Bhils, whose daughters they take to wife, and they now live apart from more civilized people They are found now in Marwar, Mewar and Sirohi. Similar is the origin of Rawats.

Bhils

The only tribe in Rajasthan that may be termed aboriginal is that of the Bhils They are found chiefly in Mewar, Banswara Dungarpur, Partapgarh and Sirohi. They are in fact the oldest inhabitants of Rajasthan. Most of them still cling to their old ways and are seen wandering about in the forests that surround the hills armed with bows and arrows. There is some similarity between the manners and customs of Bhils and those of Minas and hence some persons make no distinction between these two tribes This view, writes Webb "is erroneous". He says "Whatever may be the origin of the Minas, and that is uncertain, their only affinity to the Bhils perhaps is the fact that they were among the earliest inhabitants of Rajputana

According to the Census of 1941, in Rajasthan (including Danta, Palanpur and the whole of Sirohi), the number of each tribe was as shown below —

Bhils	7,19,748
Girassias	51,349
Merats	8,959
Minas ..	7,59,100
Rawats ..	55,032
Total	16,21,488

Next in order come the Tribes with 16 per mille; then Hindus with 14 per mille. The Jains and Sikhs return only 8 per mille for the same age". (Webb: 'These Ten Years', p. 96). The evil of infanticide among Rajputs has already been referred to Other backward customs generally associated with the people of India are also found in a more or less mature form in Rajasthan.

Rajasthan is healthier than many other parts of India. But this is not reflected in the longevity of our age. Perhaps what nature has done, man has undone. Figures for birth and death rates are not available. But we are a young people: about half the population of Rajasthan was between 15 and 50 years of age in 1941. The mean age for males was 23·7 and 23·5 for females. That again shows that we are a young people. We breed early and die early.

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was conquered and their mother land freed from the domination of infidles. They began to wander from place to place and earn their scanty living by be coming 'Gadia Lohars'. They are still keeping their vow although they have forgotten as to the main-spring of their vow.

About 86% of the total population live in villages and only 14% in cities and towns. More than 70% of the people depend upon agriculture and pasture as their means of livelihood. Only 13% depend on industry, 6% on commerce and 4·5% on professions while 5·5% may be included in miscellaneous occupations.

Literacy

Literacy in Rajasthan is very low. In 1941 only 5·2% of the total population was literate. Of the total males 8 9% were literate while only 1·03% of the total females could read and write. Literates in English were even less than half percent of the total population Among various communities the Jains and Christians showed the highest percentage of literacy (33 32 and 61·18 respectively) while the tribes the lowest (·68%). Thus a large percentage of people of Rajasthan are Illiterate and backward.

Our backwardness and unprogressive character is also reflected in our manners and customs, specially evil customs like child-marrige. In Rajasthan (including Danta, Palanpur and the whole of Sirohi) in 1941, there were 9474 baby girls aged fiive years or under who were married, (192 of whom were married before they reached even one year of age) The disastrous effect of this custom was shown in the number of widows. In the same age group (0 5) 680 girls had already lost their husbands and that among girls of all ages upto 20 the staggering number of 18735 were widows " many of them doomed by custom ever to remain so Thus child marriage writes A W.T. Webb, "still remains a grave social problem in Rajputana. The Muslims are the worst offenders, with 32 per mille of children married before reaching the age of ten years

Economic Minerals

Today occurrences of copper, lead, zinc, silver cadmium, tungsten, manganese iron, titanium, columbium, tantalum, beryllium etc are known amongst the metallic minerals In the field of industrial and *non metallic minerals* excellent development of glass sand, talc and soapstone, gypsum, mica, emerald fullers earth limestones clays felspar quartz and for a host of others is well known over widely scattered areas here A lignite coal deposit is also being worked by the Government for the last several years to provide fuel for electric power generation to Bikaner City and to Sri Ganganagar

When speaking of rocks and minerals one cannot forget mentioning the exquisite quality and quantity of *building stones* which have given us the historic Taj mahal, the famous Dilwara Jain temples the Jumma Masjid and many other beautiful public structures monuments and edifices

Mineral Industry

A *development* of Rajasthan s *mineral* industry on sound *footing* is in progress today Efforts are being made by a private corporation to revive the lead zinc silver mining activity near Zawar Udaipur More than 7000 feet of development work has already *been completed* The ore zone has been proved to exist at a *level about 100 feet* deeper than the lowest point reached by the ancients in their pits. *About 3500* tons of hand dressed lead concentrates have already been smelted, to give a lead *bullion* weighing about 1260 tons and more than 22 000 tons of mineral carrying *zinc lead* etc are stockpiled for treatment in a ore dressing mill now under erection at the mine site When ready it would treat about 200 tons of ore per day This mineral *deposit* is the only one of its kind in whole of India and if [illegible]

meet with success, the [illegible]

is an important *lead* [illegible]

partially, the growing [illegible] of these metals over the sub continent.

MINES AND MINERALS

by Shri M. L. Sethi

Mineral resources of countries have attained great importance in the modern industrial age; with them problems of international relations, trade, policies and industry are closely linked. Few people seem to realize during times of peace, the extent to which nations have become dependent upon minerals. They are the raw materials both of the machine and of the power to run it. It is unfortunate that they are unequally distributed amongst the nations both in volume and varieties.

India, though less fortunate than many other countries in possessing mineral wealth, can count on some important mineral deposits for her industrial development. Iron and manganese ores, chromite and coal, bauxite and magnesite can be named in this list. Amongst the few provinces which share this fortune in this newly born Republic, Rajasthan easily commands a high place falling next only to Bihar and Central Provinces.

Although a third of this province lies covered with deserts which have hardly been explored so far, there are the Aravallis, which give geological and mineral predominance to this land of glorious heritage.

Except for some jurassic formations in Western Rajasthan, a large part of the hilly tract consists of archaean crystalline complex, the Delhi and Vindayan systems. It is evident that an arm of the sea once extended in Rajasthan, before the Himalayas attained their gigantic heights.

Rajasthan has long been enjoying a pre-eminent position in the production of minerals and metals from its mines for many centuries, when almost every village had its own iron forge. Millions of tons of slag lying at Singhana-Khetri and remnants of zinc smelting furnaces near Zawar give convincing proof of this thriving metal and mineral trade.

was witnessed in the field of mining of mica, soapstone, beryl etc As already pointed out this province enjoys good reputation for production of non metallic and industrial minerals as well

Mica

Mica undoubtedly occupies the first place amongst them. It is indispensable for modern electrical industry. Next to Bihar, Madras may be reckoned second but Rajasthan can certainly find its rank as the third largest producer At one time, during the last war, it surpassed Madras in total mica production

Year	Output	Sale value	Government royalties
	Mds	Rs	Rs
1939-40	77 874	10 09 488	1,44,110
1940-41	68 409	25,05 190	3,31 685
1941 42	1 74 504	24 12 867	3,25,588
1942 43	1 55,323	26 01 457	3 45,751
1943-44	1,56 541	35 71 329	1,46,720
1944 45	1 34,659	32 81 403	4 32,383
1945 46	1 06 372	44 86 921	5 96,123
1946-47	99,947	27 65 665	3 87,113
1947 48	81 780	39 57 192	6,23,960
1948 49	85 299	4 44 237	1 21 656
Total	13 60 708	2,70 35 649	37,75,989

Thus from Jaipur and Udaipur area alone Rs 2,70,35,649 worth of mica during the ten years period that is 1939 49, has been produced

Emerald

When vigorous search for deposits of mica and beryl was on, a couple of small emerald producing zones were discovered in 1944-45 in Udaipur area and emerald produce worth Rs 5,99,835 has already been sold

Copper

Similarly *a programme of* copper prospecting in the Khetri-Singhana area was in progress till a couple of years ago by a private organisation but conclusive evidence has not yet been reached. *More effort in this direction is absolutely necessary.*

Iron

It is quite often asked why an iron and steel industry cannot be started here; having some good deposits of iron ore, the chief drawback is the absence of suitable coal deposit in the vicinity. Small quantity of manganese ore has, of course, been mined in Banswara and Kushalgarh area intermittently.

Beryl

A very important non-ferrous metal, for which Rajasthan has already attained some fame is " Beryllium "; its economical source, the mineral " Beryl " has been mined as an accessory mineral from several mica mines. In Udaipur and Jaipur alone 900 tons have been produced during 1942-48. This mineral has now been classed as a prescribed substance under the Indian Atomic Energy Act and the Government of India is now its sole buyer. Recently the price of this mineral has been refixed at a fair level and an attempt is now being made to increase its prospecting and mining activity. Columbite-Tantalite, a rare mineral, has also been produced in small *quantities sporadically from the same mica mines.*

Tungsten

Near Degana in Jodhpur a small deposit has been worked for wolfram from 1939 to 1946 and it has contributed about 200 tons of tungsten concentrate. The department of Mines and Geology is now planning to restart operations here.

Non-Metallic and Industrial Minerals

During the last world war the predicament of the nations was worse because supplies of several of these strategic minerals were cut off. In Rajasthan, at that time, considerable activity

was witnessed in the field of mining of mica, soapstone, beryl etc As already pointed out this province enjoys good reputation for production of non metallic and industrial minerals as well

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1942 43	1 55 323	26 01 457	3 45 751
1943 44	1 56 541	35 71 329	4,46 720
1944 45	1 34 659	32 91 303	4 32 383
1945 46	1 06 372	41 86 921	[illegible]96,123
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Emerald

Year	Production lbs	Sale value Rs	Government royalties Rs
1944-45	169		5,600
1945-46	84	2,65,432	66,358
1946-47	229	1,82,276	54,169
1947-48	115		5,000
1948-49	123	1,52,127	63,032
Total	720	5,99,835	1,95,059

In jewellery trade, Rajasthan has been famous for a long time. In Jaipur alone more than 2,000 families obtain their subsistence from this trade. Superior type of gem cutting and lapidary work is carried out here with perfection. With this trade, a quest for gem minerals is always there in the minds of people. When anyone talks here of minerals, the gems are upper most in his mind. Rajasthan is the only province where producing emerald mines are known so far in the whole of India.

Talc and Soapstone

Another mineral in which Rajasthan has secured a name both in foreign and Indian markets is "Talc" commonly known as "Soapstone". From Jaipur and Udaipur areas alone 44,66,740 maunds of this mineral have been despatched, bringing a sale value of Rs. 91,11,729. All the mineral is ground fine to 200-300 mesh in pulverizers fitted with air-separators except a small quantity which is exported in crude form.

Talc and Soapstone

Year	Production in Jaipur, and Udaipur Divisions Mds	Despatches Mds	Sale value Rs	Government royalties Rs
1939 40	3,96,646	3,36,000	3,66,539	38,365
1940 41	2,08,363	4 93,432	5 84,016	44,650
1940 41	5,57,204	5,47,995	7,63,808	1,31,765
1942-43	2,68,919	3,45,659	6 63,257	1,06,650
1943 44	4,05,823	8 92,136	5,04,455	1,04,409
1944 45	4,06,474	4,10,386	10,12 635	1,12,307
1945 46	4,96 873	5,48,189	7,66,686	93,900
1946 47	2,95,698	4,28,643	11,04,724	1,17,000
1947-48	4,06,475	4,42,442	15,16,571	1,16,420
1948 49	4,64,741	3,67,993	17,50,914	98,384
Total	38,07,215	48,11,875	90,35,605	9,63,850

The industrial importance of this mineral can well be judged from the fact that in the United States, which is one of the biggest producers as well as consumer of this mineral, the percentages of different uses can be classified as follows —

	Percent		Percent
Paint	24	Ceramics	18
Roofing	12	Paper	11
Rubber	10	Toilet articles	3
Foundry facing	2	Other uses	11

By continuous research great strides have been made in the treatment of this mineral and successful market standards have been established For example in foreign countries, grinding processes have been evolved by which particle size of 4 5 microns, a product of an order of 1000 mesh can be prepared The whiteness, slip and other physical and chemical properties are determined day to day and some of them hour to hour Close co-operation between industry and consumers have helped development of standard raw material and finished product

Gypsum

Rajasthan is fortunate to have important gypsum deposits in Jodhpur and Bikaner divisions. Since the establishment of a synthetic fertilizer plant at Sindri, Bihar, by the Government of India, Rajasthan's name as a proposed supplier of 2,000 tons of gypsum per day has become well known to many of us; formerly these supplies were projected from N. W. India, now territory under Pakistan; the circumstances have somewhat changed, making it necessary to focus attention on deposits of this mineral occurring in Rajasthan. Many million tons of reserves are known and more are expected to be found when exploration and prospecting is under way for this mineral. Though ancient Assyrians and Egyptians prized it for making containers and for sculpturing, now the building trade is consuming a major portion almost 90 percent of its total world production. Rajasthan is exporting 65,817 tons to the Cement Industry for use as a "retarder". The total production of gypsum in Jodhpur and Bikaner is approximately reckoned as 80,000 tons per year. This will considerably be stepped up as soon as supplies to Sindri plant are begun. Efforts to make use of gypsum for wall boards, files, building plasters, laths should be made to help our house building programme.

Limestone and Lime

Suitable limestones both for the manufacture of lime and cement are available in abundance in several areas. A survey conducted a year ago showed excellent limestone deposits capable of supplying to a thousand tons per day cement plant for any number of years near Chittorgarh. A cement factory at Lakheri is already producing cement and another one is under construction at Sawai Madhopur.

Glass-sand

Added to this list of non-metallic minerals, Rajasthan has good quality of glass-sands occurring as coarse friable sandstones near Bundi, Sawai Madhopur, Dhula, Jhir (Jaipur),

Zawar (Udaipur), Mudh (Bikaner) They break readily round the grains To the human race, glass making from glass sands is known for over 5000 years During the last ten years, approximately 23,00,000 maunds of glass sand has been produced fetching about Rs 20,00,000 as sale value Pottery clays, fullers earth, china clay, ochres, felspar, quartz, barytes, asbestos, graphite, and several other minerals have been produced in small as well as fair quantities from several deposits spread all over Rajasthan

Lignite

The most noteworthy amongst them is lignite coal which is mined from Government owned and operated colliery at Palana Bikaner This coal is indispensable for generating electric power for Bikaner City and Sri Ganganagar A development programme to increase output from this deposit and to prove more reserves is under active consideration of the Government

Period	Output Tons	Period	Output Tons
1939	38,914	1944	50,703
1940	40 505	1945	42,438
1941	40,767	1946	56,664
1942	47,946	1947	52,099
1943	44,516	1948	71,745

Prospects for Petroleum

Modern civilization depends to a large extent on oil and coal Oil the commodity "as necessary as blood in the battles of today has been the subject of inter national intrigues, competition etc There are several world combines and agreements as to the control of trade of this precious fuel The hitherto known pretroleum resources of India are of a limited scale Rajasthan offers prospects for exploration of this vital mineral

Just before the beginning of the last world war a preliminary geophysical survey has been carried out for oil by a private company over 5,670 sq. miles of north-western Jaisalmer. Nummulitic limestones are found here and may be considered as "source" rocks, but it is not known whether the sandstone overlying the same have adequate porosity and other conditions as to function as "reservoir" rocks for oil. Correlation of geological conditions and geophysical observations entailing more detailed work would only speak about its potentiality.

Major Revenue

Thus Rajasthan today stands at the threshold of a new era. Its prospects as a major mineral producing province are bright. The mineral industry is one of the major sources of revenue contributing almost half a crore of rupees to the Government treasury by way of royalties, which are charged as a small percentage of the sale value of minerals and building stones. This industry gives employment and subsistence to thousands of people in hundreds of quarries spread over a wide area. The intrinsic wealth accrued to this province from sales of minerals and stones amounts to many crores of rupees.

Difficult transportation, lack of finance and technical knowledge are still the chief drawbacks in quick progress but it is expected that with the dawn of this young Republic of India, people will work with renewed zeal and increased responsibility to assist higher production and to better our standard of living. Mineral deposits are a national asset and they keep on depleting with every ounce of mineral taken out from ground. A much greater care than hitherto exercised is therefore necessary to bring up systematic mining and proper conservation of this natural resource.

The Government of Rajasthan is fully alive to its heavy responsibility towards this development and has already established a department of Mines and Geology with requisite technical and administrative assistance to help a healthy growth of mineral industry in this province.

FOREST WEALTH

by Sri Sugan Chand Kothari

Forests are a valuable asset to a nation Every nation has been provided with forests as a gift of nature Man from the very start has been using them in one form or the other to his advantage In fact he has been living entirely on them Leaves grasses roots, berries and such other products of nature's vegetation have been utilised by him from time immemorial With the increase of population and progress of civilisation man cleared the forests, harnessed the animals, constructed ploughs, tilled the land, raised field crops, utilised fibres and timbers, built carts, boats houses, bridges, railways, mills and various other industries which are all directly or indirectly connected with forests India has always been an agricultural country depending mainly on rainfall, soil fertility and livestock which depend on maintenance of forests

Rajasthan's Poor Forests

However, not only the uneducated public but also the educated and responsible persons have been of the opinion that all are or should be free to cut lop, burn graze clear land, cultivate and destroy the forests This very idea has been the main cause of deterioration of forests and consequently has resulted into irregularity of rains erosion and floods, land slips, washing away of soils and a very poor livestock The innocent population have suffered from the misdeeds of their brothers

Rajasthan has also not escaped the calamity Extremes of temperature, scanty rainfall, erosion and floods have resulted into thorny forests of very poor value Fodder famines have now become a rule and not an exception

Cattle Migration

Rajasthan's present position as regards its forest wealth is not encouraging We have inherited this wealth from the

different integrating units, some of which were only a few hundred square miles in area. There was no progressive working in any of the States previously probably due to lack of trained personnel and also because the object of working was solely to get the maximum revenue They never cared for the future plans because they believed that "A bird in hand is worth two in the bush". The results of all these evils are not far to seek. Thousands of people from Western Rajputana migrate every year with their belongings and cattle to different parts of Madhya Bharat in search of food and fodder. There exists no working plans worth the name and the afforestation and regeneration works depend on the annual grant of money The forests are worked for fuel and charcoal in an unsystematic way whithout any plan for sustained yield Forests are undemarcated and rights not settled The Forest Act and Forest Policy will have to be formulated as soon as possible for the proper development and conservation of the forest wealth of the Union.

The Forests in Rajasthan cover an area of 12,869 square miles *i. e.* 11.7% of the whole area It is estimated that about 20-25% of any country should be under forests to satisfy its need of timber, fuel and grass

Forest Revenue

The total average gross revenue is about 38 66 lakhs, average expenditure 15 2[illegible] lakhs and surplus is 23 14 lakhs Just over 15 lakhs is spent mostly on the maintenance of staff and very little on building roads, management and export of forest produce, fire conservancy, boundary lines, plantations and works of improvement Revenue is mostly derived from small wood, fuel, grazing and minor forest products

Forest Produce

The chief items of forest produce are Kattha, charcoal fuel-wood, bamboos, gums, grass and khas The scientific methods of extraction for the minor forest products are not employed. Evidently there is a great field of improvement

for certain industries such as catechu, biri, tanning fibers and flosses, manufacture of ropes, wooden toys, and extraction of khas oil Mahua trees are found in abundance in most parts of Rajasthan In these times of petrol shortage, it might become possible to manufacture power alcohol from the fruit of these trees There exists a vast potentiality for the manufacture of paper pulp and card board from several common fodder grasses, bamboos and salai (Boswellia serrata) found surplus in the Union A fairly large quantity of fuel and charcoal is exported annually to adjoining provinces because it cannot be transported to distant fuel famine areas of Rajasthan due to lack of means of communication

Forest-Administration

The general forest administration of the Rajasthan Union is under the *Chief Conservator of Forests*, whose head quarters are at Kotah

There are two circles incharge of the Conservator namely Eastern and Western Circles with head quarters at Kotah and *Udaipur* respectively

The *Circles* are divided into 12 divisions and 3 sub divisions which are in charge of Divisional Forest Officers and Sub-divisional *Forest Officers* Eastern Circle comprises of Kotah, Baran, Jhalawar, Bundi Tonk, Jaipur Sawai Madhopur and Bharatpur division and Sirohi and Alwar sub divisions Western Circle consists of Udaipur Chittore Banswara and Jodhpur divisions and Dungarpur sub division

The divisions and sub divisions are divided into 75 ranges

In addition there is a *Wild* Game Preservation Department under the guidance of Chief Conservator of Forests

Forest School

There is also a Forest School at Kotah to meet the needs of the trained personnel for the whole of Rajasthan The School works under the guidance of the *Chief* Conservator of Forests

At present, 3 candidates are receiving training in Superior Forest Service Course, one in Ranger Course at Dehradun and 15 candidates are receiving training at the Forest School, Kotah

Future Plans

The work of the integration of the various units of Rajasthan and organisation of Forest Department is now complete

The immediate object is to form a sound forest policy and a Rajasthan Forest Act After that an immediate survey of *the forest areas, their demarcation and settlement of claims* would be taken in hand Forests will be classified according to their conditions as reserved protected and unclassed Suitable working plans will then be prepared for each area

There is a plan to make the public more 'Forest minded' and to educate them regarding the use of forests for their own benefit The publication of the monthly forest bulletin "VANSHREE which is now well under way would serve the above purpose

It is proposed to appoint a Utilization Officer for Rajasthan who will take care to see that the forest products are exploited to the best benefits of both the public as well as the Government The question of development of forest industries is also under active consideration

The necessity for afforestation of the semi arid areas of Rajasthan and the advancement of the regeneration in the existing areas is to be taken with enthusiasm in the near future 'Grow more tree campaign has already been started and public is evincing great interest in the movement

Statement showing forest area Revenue & Expenditure with major heads of income from forest produce in Rajasthan

S No	Units	Total forest area in Sq Miles	BUDGETTED (Average)		Major heads of income (Average) from forest produce					Minor Forest Produce	Remarks
			Revenue Rs	Expenditure Rs	Timber Rs	Fuel & Charcoal Rs	Hay Rs	Khas Rs	Bamboo Rs	Rs	Grazing Rs
1	Matsya	908	4 83 500	2 66 900	10 000	1 80 000	18 000	50 000	10 000	28 500	1 51 700
2	Jodhpur	157	4 60,500	55 000	29 800	3 66 500			4 800	17 300	28 300
3	Jaipur	384	3 67,100	1 85 400	8 700	1 08 100	64 700		1 000	36 000	1 19 600
4	Bikaner	80	15 500	14 000	100	1 000				900	13 100
5	Rajasthan	11 010	25 00 000	10 00 000	4 50 700	3 19 000	3 48 100		64 400	6 61 100	3 83 500
6	Jaisalmer										
	Total	12 869	32 66 600	15 22 200	4 99 300	10 04 600	4 30 800	50 000	80 200	7 14 100	5 96 200

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The necessity for afforestation of the semi-arid areas of Rajasthan and the advancement of the regeneration in the existing areas is to be taken with enthusiasm in the near future. 'Grow more tree campaign' has already been started and public is evincing great interest in the movement

Statement showing forest area, Revenue & Expenditure with major heads of income from forest produce in Rajasthan

...	Units	Total forest area in Sq Miles	BUDGETTED (Average)		Major heads of income (Average) from forest produce					Minor Forest Produce	Remarks
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6	Jaisalmer										
	Total	12 869	38 66 600	15 22 200	4 99 300	10 04 600	4 30 800	50 000	80 200	7 14 100	5 96 200

AGRICULTURAL 'PRODUCTS

by Shri T. C. Kala

The Rajasthan Union was formed in the month of April, 1949 by the merger of 19 different States, varying in size and standard of administration. The total area of this Union is 1,28,661 square miles and after the formation of Andhra Province, it will be the largest province of India. The population of Rajasthan is only 1,30,85,000, the density of population being not so high as compared to provinces like U P, Bombay etc., but even then it is not self sufficient in food requirements.

The main reasons for this low production are that a greater portion of Western Rajasthan consists of barren sandy tracts with a low rainfall and scanty means of irrigation. Moreover, some parts of Rajasthan are one of the most backward tracts in the Indian Dominion as far as agriculture is concerned.

Table on page 75 shows the total Khalsa area of the different units both under irrigation and Barani conditions, figures for the non-khalsa area are not available.

Before discussing the implications of the above data it will also be desirable to see as what percentage of the total area of the whole Unit is under Khalsa and Jagir.

The following table indicates the number of villages, with the total area and the percentage of the area under Khalsa in each Unit.

S. No.	Name of the Unit	No of villages	Total area in acres	Percentage of area under Khalsa
1	Former Rajsthan	11 469	1 89 78 560	57 6
2	Jaipur.	6,371	[illegible]0 84 640	80 5
3	Jodhpur & Jaisalmer	4 936	3 26 34 240	9 1
4	Bikaner	3 [illegible]69	1 17 [illegible] 880	35 6
5	Matsya	4 206	48 81 920	93 1
	Total	33,111	8,11[illegible]240	[illegible]

Table showing the details of occupied and unoccupied Khalsa area of each Unit

Serial No	Name of Units	Total Khalsa area in acres	Area unoccupied in acres	AREA OCCUPIED: Total	AREA UNDER IRRIGATION: By wells	AREA UNDER IRRIGATION: By other sources	AREA UNDER IRRIGATION: Total	Barani	Total Cultivators	Unculti-vated etc
1	Former Rajasthan.	1,09 35 100	61 36,329	47,98,771	2,27 144	1,18,912	3,16 062	41,93,804	45,39,866	2,58,905
2	Jaipur ...	J0 46,229	11,10 080	19,36,149	1,72,111	48,787	2,20,898	9,51,528	11,72 426	7,63,723
3	Jodhpur and Jaisalmer.	32,14,800	14,70,720	17,74,080	88,960	17,920	1,06,880	9,93,920	11,00,800	6,73,280
4	Bikaner	53,22,428	21,15 878	32,06,550		6,66,148	6,66,159	17,57,804	24,23,963	7,62,587
5	Matsya ..	45,48 378	8,25,340	37,23,138	3,81,461	2,04,046	1,88,507	16,46,539	21,35,016	15,88,092
	Total	2,70,96,935	1,16,58,347	1,54,38,688	7,72,676	10,55,813	18,28,506	95,13,595	1,13,72,101	40,66,587

It will be noticed that only 33% of the total area of Rajasthan is in Khalsa and 66% in non Khalsa The highest percentage of non Khalsa land is in Jodhpur and Jaisalmer and lowest in Matsya

Settlement operations have not been done in most of the non Khalsa areas and the security of tenure is very uncertain At the same time the incidence of rent is much higher as compared to the Khalsa area Permanent improvement of land depends on the security of land tenure as no cultivator would invest his capital in long term projects, the fruits of which he or his successors may not be able to reap Secondly, the financial resources of Jagirdars in most of the cases are very meagre depending on the size of their Jagir and they rarely care to invest capital on the permanent improvement of the land At the same time very few Jagirdars could afford to take up projects requiring a large capital The rulers of the various States also meted out a stepmotherly treatment with the Jagir cultivators so far as improvement of land was concerned No big *irrigation project solely for the benefit of the Jagir areas*, was ever taken up and the non Khalsa cultivators were denied the benefit of Taqavi loans etc, for the improvement of their holdings It is on account of these defects that two thirds of the area of Rajasthan have remained in a neglected condition for the past several centuries and the lot of the agriculturists in the non Khalsa area is far from satisfactory It is no doubt, therefore that the agitation for the abolition of the Jagirdari system made itself increasingly felt No land record data is available for the Jagir areas and one has to estimate only on the basis of the khalsa area although on the basis of facts mentioned above it is not a correct estimate

Irrigation Facilities

The table on page 75 indicates that only 16 of the total cultivated *area is under irrigation and the rest under Barani* conditions depending on the vagaries of the monsoon which is very uncertain in this part of the country Even in the irrigated area only the Gang Canal Colony which constitutes

practically the whole of the irrigated area in Bikaner has a perennial means of irrigation the rest of the area is controlled by wells or tanks which also dry up in most cases if the monsoon fails It is on account of lack of irrigation that Rajasthan is deficit in food production

Money Crops

In normal periods the condition of the agriculturist can improve only if he produces much of the commercial crops like sugarcane, jute, cotton, zira, oilseeds etc These crops specially sugarcane, jute and cotton require very favourable agricultural conditions in which means of irrigation is the first and foremost In Rajasthan there are only two sugar factories one in Ganganagar and the other in Udaipur (Bhupal Sagar) and these too have recently been started There is very little scope for new factories unless more area is brought under perennial irrigation Increase in area under sugarcane will depend on the completion of the Bhakra dam which will irrigate a considerable area in Bikaner and parts of Shekhawati Similarly when Chambal project in the Kotah Division and and the Banas project in the Jaipur Division are completed, it is hoped some more sugar factories might be put up in the commanded areas

Jute cultivation is unknown in Rajasthan and there is very little scope for it at present Cotton is the most important fibre crop of Rajasthan and it is mainly cultivated in former Rajasthan and Bikaner, but unfortunately most of the area is under short staple varieties It is only in the Gang Canal Colony of Bikaner that medium and long staple cottons are successfully cultivated to some extent Since the partition of India most of the canal irrigated areas in the Punjab and Sindh which used to supply the bulk of American cottons to the Indian Mills have gone to Pakistan there is great demand for better quality cotton in the country With the completion of the Bhakra dam project and other irrigation schemes under contemplation it is expected that the area under medium and long staple varieties of cotton will increase in Rajasthan

The following statement shows the area in acres under cotton and other important money crops in the different units of Rajasthan excluding Matsya (figures not received).

Area in acres under different money crops in Rajasthan

S No	Name of crop	Name of Unit				Total for Rajasthan (excluding Matsya)
		Former Rajasthan	Jaipur	Jodhpur	Bikaner	
1	Sugarcane	32,486	5,826	220	34,487	73,019
2	Cotton	1,30,296	7,028	4,001	42,112	1,83,437
3	American Cotton .	.			2,892	2,892
4	Til ..	1,47,383	50,355	1,27,900	4,294	3,29,932
5	Groundnut	25,097	15,659		..	40,756
6	Rabi oilseeds including Linseed	1,14,081	12,278		1,62,674	2,89,033
7	Zira .		18,452		...	18,452

The Agricultural Department has already started schemes of cotton improvement in Mewar and about 6,000 acres had already been brought under improved varieties and schemes for other areas are under consideration.

Til is an important oil seed crop in Rajasthan. Its cultivation is simple and easy and if the rains are favourable and there are no insect pests or diseases, it gives a good return to the cultivator. It is an important source of fat specially for those who cannot afford butter. The cake is an important cattle-feed. Similarly, ground nut is another important oil-seed crop of Rajasthan. It is mainly grown in Kotah Division and the former Jaipur State. The area under ground-nut can be further increased if the rainfall is more than fifteen inches during the growing season.

In the Rabi oilseeds—Sarson, Linseed and Taramira are the predominent crops. In former Rajasthan, Linseed is largely grown as a Baram Rabi crop and Sarson and Taramira as important oil-seeds in the Gang Canal Colony. Zira is one of the most paying money crops in Rajasthan. It has a good

export market and besides the cultivator the State also gets a good income in the form of customs duty The area under this crop is available only for the Jaipur Unit It is also grown in the other units and is an important crop in the former Rajasthan Its cultivation is very simple and the cost of cultivation is also small If there are no fungus diseases, its cultivation gives a good remuneration to the farmer

During the war and subsequent years the area under these money crops was curtailed in order to increase food production Shortage of food crops still continues but due to the partition of the country the area under cotton has to be increased and crops like Zira and oil seeds which have an export market also need

new planned economy of the country there is a definite place for these money *crops which can no longer be neglected* even though there is a great need for food crops

Food Crops

According to a recent statement prepared by the Civil Supplies Department the estimated area and production of food crops in Rajasthan are as under —

Table of Estimated Area and Production of Food Grains

S No	Name of grain			Estimated area in 000 acres of 1949 50 crop	Estimated production in 000 tons of 1949 50 crop
1	Wheat			1150	426
2	Barley			600	180
3	Gram			1500	240
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5	Wheat gram mixture (Gochani)			150	35
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7	Bajra	...		3800	150 Normal yearly production 300
8	Maize	...	...	940	50@ Normal yearly production 100
9	Jowar	...	..	700	77
10	Rice	...	...	40	10
	Total	.		9,230	1,244

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During the war and subsequent years the area under these money crops was curtailed in order to increase food production Shortage of food crops still continues but due to the partition of the country the area under cotton has to be increased and crops like Zira and oil seeds which have an export market also need an encouragement for earning foreign exchange to meet the heavy cost of imported material required for industrial and agricultural development of the country Thus in the new planned economy of the country there is a definite place for these money crops which can no longer be neglected even though there is a great need for food crops

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9	Jowar	700	77
10	Rice	40	10
	Total .	9,230	1,244

Besides these cereals, a considerable area is put under Kharif pulses specially moong, urad, arhar, chonla and moth. Guar is another important crop, which is largely used for cattle feed. In normal years, Rajasthan has been a surplus province in pulses and there was regular export to the adjoining provinces.

It may be mentioned here that at present most of the area is under the local varieties and production can be increased by the introduction of improved varieties and fertilizers. The use of fertilizers is at present practically unknown in Rajasthan. As compared to other provinces, there is greater scope for agricultural improvement here.

Cattle Wealth

Mixed-farming is generally practised in Rajasthan and the cattle wealth of the Union has great value specially in the western dry parts of Marwar and Bikaner Due to lack of irrigation facilities and scanty rainfall, the crop harvests are usually uncertain and the land is largely utilized for grazing. Jodhpur is famous for its Nagore breed which is swift and strong and every year a large number of bullocks are exported to distant places The cultivators maintain a large number of cattle and they depend more on their cattle wealth than on Agriculture In years of famine they migrate to other places with their cattle This results in serious loss not only to the Government, which has to give subsidies but also to the cultivator. Improvement of pasture lands in these areas and fodder reserves will check this migration of cattle wealth. Control of contagious diseases by an efficient Veterinary service is also of importance

Besides the Nagore breed, the Mewat breed in Alwar and Shekhawati-breed in Jaipur are also of importance Both these are dual purpose animals like the famous Hissar breed

Sheep and goat farming is of considerable importance in Rajasthan and the total sheep population is estimated to be 7,000,000. Sheep farming forms an important profession in Bikaner, Jodhpur, Jaisalmer and parts of Jaipur. Rajasthan

has been famous for the quality of its wool and is one of the biggest wool exporting provinces of India The Rajasthan Government is submitting samples of hand spun and hand woven woollen cloth to the sub committee of Indian Standards Institution for the manufacture of India's National flag If these are approved, it will open a new era for this industry

Besides cattle and sheep, camel and horses of good quality are found in Rajasthan Although there is little outside market for these but they are of considerable importance in the province where modern means of communication are meagre at present The improvement of these animals has been left to private individuals but now Government attention will be paid and a continuity of policy maintained to improve them

A BRIEF SURVEY OF INDUSTRIES

by Shri N N Godbole

The important industries in the former Rajasthan Union which comprised of the following States namely, Udaipur, Pratapgarh, Bhilwara, Banswara Dungarpur Kotah, Jhalawar, Bundi, Tonk, and Kishangarh, are the following —

In all there are 36 cotton ginning and pressing industries and four big textile mills There are two textile mills at Bhilwara, one at Kishangarh and one at Kotah

This area is rich in minerals, specially sand and stone quarries The sand which is of a special good quality is a very good raw material for glass factory

Engineering and Metal Works

There are seven engineering and metal workshops There are other workshops dealing with foundry, electrical and metal foundry All these are adjuncts to other industries and some of these are useful for constructing new types of machinery which is to be taken up in this Union

There are in all 12 oil mills in the different States and they are mainly crushing lin seed and seasamum

Match Factories

There are two match factories—one at Kotah and the other at Fateh Nagar As is well known the Wimco of India holds a monopoly of the match industry in India This organisation is all-powerful and is almost like an Octopus The existing Indian match factories throughout India supply about 20 % of India s demand and they are always struggling for their existence due to the competition of the Wimco

Glass Factories

The number of glass factories in this area is two – one is at Udaipur and the other is at Kotah The factory at Udaipur is in an experimental stage

Distillaries

The number of distillaries in this area is 12 and they are located as follows —

1 Bhawani Mandi. two
2 Banswara
3 Kotah
4 Udaipur
5 Doongarpur
6 Nimbahera
7 Pratapgarh
8 Lakheri
9 Kishangarh
10 Bundi
11 Kushalgarh

In keeping with the prohibition policy of the Government of India attempts should be made to convert all these distilla ries into factories for manufacturing power alcohol In the long run power alcohol can be utilised as petrol which we are now importing from foreign countries Thus it will not only afford good work to the existing distillaries but will also add to our capacity for saving dollars which to day we have to send out for buying petrol

The cement factory at Lakheri is a very famous unit

As regards other industries, there are two pottery factories and three Dal factories There are also industries such as rubber, wire and nail, soda silicate soap etc

Jaipur Unit

In this area there are both large scale and small scale in dustries Among the large scale factories some deserve special mention —

Jaipur Metal Industries Ltd situated near the Jaipur Rail way Station claims to be the largest unit for non ferrous metals in India Its largest single achievement has been the manufacture of arsenical copper for use in boilers of railway locomotives

Jaipur Glass and Potteries Works Ltd. is the pioneer glass factory of this area. Jaipur Spinning and Weaving Mills Ltd. is the only textile mill at Jaipur. Indian Hume Pipe Co. Ltd. has also set up a plant at Jaipur for manufacturing pipes and reinforced concrete poles. Other important industries are Jaipur Engineering and Construction Corporation Ltd., Jaipur Mineral Development Syndicate Ltd., Laxmi Metal Industries Ltd, Jaipur Bone Factory – the only bone-crushing Factory of this area owned and run by Raj Traders Limited, Jaipur Maize Products Co., Jaipur Distillery and Rajputana Cold Storage and Refrigeration Ltd.

The other minor industries and concerns are engineering workshops, printing presses, ice and ice-candy factories, gota factories, khandsari sugar and gur factories, cinemas, knitting factories, soap factories, small scale saw mills, carpet factories, oil and dal mills and motor car repairing workshops.

New Concerns

A number of new industrial concerns are being contemplated and a move has been already made to establish these.

1. Man Industrial Corporation Limited. (For making steel doors, windows, almirahs and other allied products.)
2. National Ball Bearing Factory Limited.
3. Jaipur Udyogya Limited (for manufacturing cement)
4. Agencies Limited (For industrial motors).
5. Biscuit Factory.

These industries which are now being planned will appreciably add to the productive capacity of the State. The construction work is going on and the Government is also interested in some of these even financially. This will considerably solve the problem of un-employment besides adding to the potential wealth of the Union.

Matsya

The old Matsya Union is composed of the four following States.—

1. Alwar.
2. Bhartpur.
3. Dholpur.
4. Karauli.

On the whole, in this unit there are not many large scale industries. The main industries and concerns of this area are oil mills dealing mostly with mustard seed, ice factories, cinemas, glass factories and distillery. The pottery and porcelain factory, paint and varnish factory, match factory, barium sulphate factory and radio assembling factory at Bhartpur deserve special mention. The glass factories at Bharatpur and Dholpur are using furnaces which are oil fired and the factory at Dholpur is making special type of laboratory glasses. In this area there is a great possibility of developing the mineral resources specially the copper pyrites which is said to be rich to the extent of 3·5 % of copper.

Ghatshila Copper Works

The deposits of feldspar and quartz, clays, ochres etc. are of a high purity and deserve further exploitation. The stone quarries at Karauli are a rich source of income to the State and some of the stones worked in this area are carried to distant places like Delhi for building construction.

Salt Manufacture

The Rajasthan Government has recently appointed a Committee to go into the question of salt manufature and investigate all possible sources of salt available in Rajasthan. The preliminary survey is already begun and some of the old sites (Kanod, Bap, Pokarn etc.) have already been visited and it is expected that all these sources are of great potential capacity. In some of these places, the "RANNS" are fairly big and extend

over 5 to 20 sq. miles each and saline water is available at a depth of 10 feet. The geophysical survey which is being carried out at Bhartpur by the Government of India finds that the supply of salt water in the Bhartpur area is of a very great magnitude and when this is worked up, Rajasthan Government should be able to supply to the extent of even 15 to 20 % of India's needs. It should be noted that due to the Excise policy of the Government of India, all these salt deposits have been closed down since 1878. Therefore, the question of opening up all these sources for the manufacture of salt would take a period of about five years normally. The policy is to encourage a large number of salt producers and the area allotted to each one of them would not exceed 10 acres. This policy also will help a very large number of workers to come in.

Bikaner

In the Bikaner area, there are quite a large number of important industries. The Ganga Nagar area, which has been recently developed due to the canal irrigation, deserves special mention. In this area a number of industrial concerns are springing up, such as, oil mills, sugar factory and distillery. The area also grows plenty of mustard seed and ground-nut, of which the latter is exported outside Rajasthan. The crushing of this ground-nut oil is not allowed by the Government at present and this question requires a close examination.

Jodhpur

Jodhpur has a number of important industries. Amongst them the following deserve special mention.

Distillery, glass factory, metal works and utensil manufacturing factory etc. Messrs United Trading Company are perhaps the biggest concern in the whole of India for manufacturing sodium sulphide from sodium sulphate. The sodium sulphate deposits at Didwana form a great monopoly of this raw material in the whole of India and this is being worked since 1940. The annual production of sodium sulphate is over one

lakh mds and this is supplied to the whole of India The possibilities of extending this industry are great

Tanneries

The number of tanneries is 16 and the work done in these tanneries is on the old traditional method The new methods of tanning will soon be introduced and a plan is being worked out to introduce modern tanning like that of chrome tanning The hides and skins available in this area of Rajasthan are quite large and like for the rest of India this industry has got a great future The vegetable tanning material such as Babul Awala, etc are available in plenty and are cheap also The sodium sulphate factory is capable of producing about 3 000 tons of sodium sulphide per year which is practically what is needed by the whole of India Therefore, this factory would, when properly worked up, supply one of the outstanding demands of the Indian market The sodium sulphate works at Didwana are under State management

Cattle Wealth

The cattle wealth of Rajasthan can be said to occupy the 4th place according to the All India Cattle Census figures of 1940 In addition to its population of sheep and goats which number 80,00,000 (eight million) cattle and other animals which are used for ploughing, transport and dairy purposes, are also useful in giving us bones grease hides and skin and wool which are important raw materials for other industries Thus the States of Rajasthan on account of their cattle and other animal population (16 34 000) provide immense scope for the development of industries in which bones and wool are used as raw materials

The bones are very useful for the manufacture of bone grease, bone super phosphates glue and gelatine and phosphoric acids etc It is estimated that in the Rajasthan area annually 21 thousand tons of bones should be available It is difficult to get the exact data because the bones of dead animals are scattered in the villages and are not accumulated or collected

systematically in one place. There is also the difficulty of caste restrictions for the collection of bones and this has been a great handicap in developing these industries. There are already two established bone mills one at Jaipur and the other at Pali in Jodhpur, and there are three more under contemplation. A survey is being made of the possibility of extending this industry to put it on a systematic basis.

Wool Industry

Regarding wool industry, the produce of wool in this area is estimated at 180 lacs of pounds annually or nearly 1/3rd of the total wool-clip of India Attempts are being made to consolidate the proper working of this industry. The difficulties are want of literacy on the part of the shepherds. There is a great need of co-operative efforts in collecting the wool, washing it properly and sorting it out according to grades. The Indian wool exported is classified as carpet wool although it is fit for high class goods also. Due to want of an organisation for the grading and proper baling of the different varieties of wool in the Rajasthan area, export market is very much affected. The Rajasthan Goveenment is taking up this question seriously and when this is done, it is expected that the high class wool available in this area will be supplied to the Indian woollen mills which are today working with imported Australian wool. The area of Rajasthan is very large and there are great difficulties regarding facilities for transport and proper movement of the wool The main wool producing centres are Jodhpur, Bikaner, Jaisalmer and Shekhawati Negotiations are going on for starting a wool mill at Bikaner where a modern plant will be established It should be noted, however, that in India the existing woollen mills at Kanpur and Dhariwal are quite big. They too have to depend on the imported wool even for the manufacture of high class goods

Cottage Industries

Jaipur has long since been renowned as the home of numerous arts and crafts. The high degree of workmanship as

well as aesthetic sense of the artisans finds expression not only in the picturesque attire of the people but even in the houses in which they dwell But it is in the manufacture of carpets, engraved and embossed brassware silverware, ivoryware, marble statues and figures, papier machie work, jewellery and the delightfully printed Sanganeri "Chints", "Chundries" and "Safas' that the genius of the Jaipur craftsman is most in evidence

The lapidary industry of Jaipur is considered to be the largest of its kind in Asia, if not in the world The following cottage industries are mostly carried on in the places mentioned against each —

1	Handloom and "Khaddar"	Throughout Rajasthan Specially at Govindgarh and Karauli
2	Katha" making ('Handi' method)	Alwar and Dholpur
3	Iron tools and agricultural implemenments	Matsya Refugees have taken up this profitable work due to the exodus of Meos to Pakistan,
4	Fireworks and Crackers .	Dholpur and Jaipur.
5	Preparation of chains by wire	Dholpur.
6	Preparation of salt	Bharatpur
7	Khas Scent	Bharatpur & Sawai Madhopur
8	Wooden toys and lac bangles	Jaipur and Karauli
9	Leather articles	Jodhpur and Jaipur.
10	Durry and Niwar .	The central jails of Jodhpur and Jaipur are very famous for the durable and beautiful durries
11	Tie and dye work	Jodhpur and Jaipur
12	Carpet and dyeing work	Alwar and Jaipur
13	Handmade paper	Kotah and Sanganer

A palm-gur organiser has been appointed at Jaipur and he will be soon assisted by a large number of workers trained at Government expense. Already a certain amount of palm gur has been made as an experimental measure and fruitful results are expected.

There are prospects of taking up silk industry and silk worm rearing at Sikar which is famous for its silk articles.

Gramodyog Sangh

The department of Industries has newly constituted a board known as Gramodyog Sangh for developing cottage industries in the whole of Rajasthan This board is examining the possibilities of expanding the existing industries on the Japanese models A number of industries including tanning, paper making, bee-keeping, Khaddar oilghanis manufacturing etc are being carefully examined and it is expected that modern appliances of the type imported from Japan recently at Delhi will soon be introduced Wherever possible the use of power will be introduced to help the increase of production and to facilitate market prices The main objective always will be to give work to as large a number of people as possible and to treat the workers as human beings and to give them bread in the distant villages according to the Gandhian ideal

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CO OPERATIVE MOVEMENT

by Shri Rameshwara Prasad Bhargava

The Co operative movement in Rajasthan was first started in Bharatpur in 1915 Kotah was the next to follow in 1916 By the time of merger, the movement had spread in the following covenanting States with 2677 societies in all —

	Name of the State		Since	No of existing Societies
1	Bharatpur	...	1915	654
2	Kotah		1916	655
3	Bikaner	.	1926	136
4	Alwar		1934	321
5	Kishangarh		1935	35
6	Jodhpur	...	1938	275
7	Jaipur	...	1944	410
8	Udaipur		1948	144
9	Dholpur	...	1949	11
10	Karauli	...	1940	25
11	Jhalawar		1949	9
12	Bundi	.	1949	1
13	Kushalgarh	. .	1949	1
			Total	2677

There was no Co operative movement in Tonk, Shahpura, Banswara, Partapgarh, Dungarpur and Jaisalmer

It will appear from the above statement that even in places where the movement was started fairly early, the progress had been very limited. The main causes for this have been the laissez faire policy of the States the illiteracy of the people and the fact that the movement did not cover the life of the individual as a whole The chief handicap has been the paucity of trained staff

Economic Planning

The States and the people little realised that the Co-operative movement can play an important role as the most suitable medium for the democratizing of economic planning and that it is the key-stone of an arch without which the technical knowledge offered from the side of the State and enterprise on the part of the people will not succeed in supporting a progressive rural economy among millions of agriculturists and cottage-workers. Those in power never thought that it was only through organised bodies built upon the smallest and the most numerous economic Units that large-scale improvements could be introduced successfully. A feature of the Co-operative system which renders it particularly attractive is its extreme adaptability.

Scope of Work

So far emphasis has generally been laid on the credit side of "Co-operation" only, but the conditions have now changed. The experience of other provinces as well as our own requirements point out the necessity of undertaking all those activities which affect the daily life of agriculturists and artisans and not merely confining to credit business It has now been conceded that the Co-operative movement is a social organisation which tends to promote better living and general improvements in the village conditions and to eliminate feuds, litigation and friction. All governments have now almost unanimously come to this conclusion that the Primary Credit Societies should take the form of Multipurpose Societies so as to serve as an agency for the general economic and cultural improvement of its members. It should, in particular, (a) finance crop production, (b) undertake marketing for its members, (c) supply the farmer's simple needs for crop production like seeds, cattle-feed, fertilisers, agricultural implements, consumers' needs etc , and (d) encourage subsidiary occupations. The Co-operative movement should view the life of the agriculturist as a whole if it is at all desired to make it successful.

The following types of societies have, with varying degrees of success, been tried in other provinces and are proposed to be started in due course in Rajasthan as well —

(a) Farming and Consolidation of Holdings,
(b) Better living and Rural Development,
(c) Cattle and Sheep Breeding,
(d) Agricultural Marketing or Sale and Purchase Societies and Unions,
(e) Housing,
(f) Consumers' Stores,
(g) Health Co operatives,
(h) Ghee and Milk Collecting,
(i) Industrial Societies, e g weavers, handmade paper-makers, calico printers, blacksmiths, tanners, etc

Target

The Co-operative movement has to take as large a number of villages as possible within its ambit A group of societies scattered here or there cannot serve the purpose

The Saraiya Committee had recomended in 1946 that an attempt should be made to bring 50% of the villages and 30% rural population within the ambit of the reorganised primary societies within a period of 10 years As against this, our existing percentages approximately work out to only 5 6 and respectively the total number of villages and agricultural societies in Rajasthan being 29,792 and 1674 and total rural population and the membership of Co operatives being 1,10 22,119 and 79,904 respectively It shows that a tremendous task lies ahead of the Co operative department to achieve even a modest standard Looking to the vastness of the area to be tackled and the handicaps under which we suffer such as, acute shortage of trained staff, difficult accessibility of the various areas from one another due to hills, valleys, jungles and deserts undeveloped means of communication, general ignorance and illiteracy of the masses, the heterogenous character of the area and its people, it is not considered feasible or even

desirable to start work simultaneously all over the province. It is, therefore, proposed to start fresh societies only in areas which are contiguous to places where the movement is already in progress, or in such hitherto unexplored areas as appear to be most suitable for the purpose Expansion will gradually take place in the light of experience and with the availability of the trained staff

In view of the above mentioned considerations, a target of 6,000 societies as detailed below has been fixed to be achieved as against 15,000 according to the recommendations of the Saraiya Committee :—

Name of Unit	No of villages	Rural population	No of existing Societies	Target according to Saraiya Committee	Our target inclusive of the present Societies	Re marks
1. Jodhpur	4,172	22,10,570	275	2,082	931	
2. Former Rajasthan	13 295	38,07,000	845	6,668	1,585	
3. Bikaner	2,893	9,83,670	136	1,454	501	
4. Matsya	3,908	16,56,107	1,011	1,919	1,840	
5. Jaipur	5,624	23,64,772	410	2,914	1,305	
Total	29,792	1,10,22,119	2,677	15,037 or 15,000	6,212 or 6,000	

Marketing

Lack of education and experience in the art of marketing and the financial weakness of the cultivator place him at a disadvantage as compared to the businessmen and deprive him of the due profits of the industry in a majority of cases, Formation of Agricultural Markting Societies and Unions appears to be the possible remedy to save cultivators from the clutches of the businessmen. These societies are expected gradually to perform all such services as are necessary for the effective marketing of produce like assembling storing, grading, processing, financing, selling and transportation They can also arrange for supplying consumer's goods, improved seeds, fertilizers, manure, etc. to their members.

It is therefore proposed to set up Marketing Unions with a net work of Co operative societies round about important markets in the province The work being new, a very cautious start will, however, have to be made in the beginning

Co operative Better Farming Societies

Two such societies, one of displaced persons at Daulatpura and the other of ex soldiers at Man Nagar have already been organised in Jaipur Division More such societies will be established as early as possible

Consolidation of Holdings

As in other parts of India, fragmentation and sub division of holdings is a rule in Rajasthan also The size of average holdings is too small and uneconomic to enable the farmers even to have a bare subsistence In the words of the Royal Commission on Agriculture "fragmentation involves endless waste of time money and effort it restrains the cultivators from attempting improvements, it enforces uniformity of cropping and especially restricts the growing of fodder crops in the period when cattle are usually sent out to graze on the fields

The most suitable remedy for all these evils is obviously consolidation of holdings on co operative lines This is pro posed to be undertaken fairly early

Cattle and Sheep-Breeding Societies

The vast deserts of Bikaner and Jodhpur have been good sheep breeding centres but for want of proper co ordination and financial assistance the progress so far has been rather limited It is therefore proposed to start such societies in suitable centres as soon as conditions permit

Housing

This is one of the most acute problems of the day The daily increasing number of urban population coupled with the

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Education

General education is the function of the State. The Co-operative movment can make a contribution in this respect by spreading general knowledge through its publicity organisation and by *promoting* literacy in *villages* by the *establishment* of Adult Education Societies or *Better-Living* or Gram-Sudhar Societies.

Through *these* and *other* miscellaneous activities, the Co-*operative department* is going to strive for the uplift of the rural masses by the establishment of societies in every nook and *corner of* Rajasthan.

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heavy influx of displaced persons has put the greatest strain on the administration. Co-operative Housing Societies can go a long way to solve this difficult problem. Half a dozen such societies of refugees and two others at Jaipur and Sanganer have been organised. More systematic planning is contemplated in this direction.

Rural Reconstruction Work

Rural development is a rather comprehensive term which aims at organising villages for a happier, better, and a more prosperous life. The various nation-building departments of the state, namely, Health, Education, Agriculture, Veterinary, etc. are all endeavouring to achieve the same object in their respective spheres. But the field to be tackled is so vast that it may perhaps not be possible to undertake the entire task all at once. It will also perhaps not be feasible for these departments to approach all the individuals in such large areas. It is here that the Co-operative department with its net work of societies spread all over the province can play an important role. It can coordinate the activties of the various departments and effectively assist them in the execution of their plans and schemes.

Agriculture

The improvement of seeds, implements, fertilizers and the *investigation of their adaptability to local conditions of soil* and climate is the function of the department of agriculture but the Co-operative department can be the most suitable agency for popularising their use and arranging for their distribution.

Animal Husbandry

The department of Animal Husbandry will select and supply improved breeds of cattle The Cooperative department can convince the people of their usefulness by having their members' cattle served by the approved bulls and helping the department in achieving its objects.

about 60,000 acres Similarly an area of 1,50,000 acres is irrigated in Matsya, 20 000 acres in Jodhpur and 80,000 in Jaipur There is, however, a vast scope to extend the area of irrigation all over If the existing tanks and storage facilities are to be improved and the present system of irrigation extended it would result in about 3 times the present acreage under irrigation the major scheme at present in view is the Chambal multi purpose scheme The proposal is to have three dams, one of which lies in the Madhyabharat Union and the other two in the Rajasthan Union and also a barrage below Kotah

The Banas Pilani Scheme

The Banas Pilani scheme is to store water by means of a high dam on the Banas at the Bisalpur or the Rajmahal site, take out a lift canal across passing Sambhar and on to Pilani towards the north east with a breach to the south west From this dam, gravity canal can also be taken out to irrigate the areas in the Banas valley right down to Gangapur and Sawai Madhopur The irrigation may be in the order of 7 to 8 lakh acres The power required for the lift canal will be obtainable from the Chambal scheme mentioned above

Alternative or in addition to the above scheme are the Banas Khakunda scheme and the Bisalpur (small) dam scheme which all combined may give more irrigation In former Rajasthan there is possibility for another scheme on the Abu Kalisind with irrigation potential of over 60,000 acres In Matsya area there is Parbati Project which has an annual irrigation potential of about 15,000 acres There are many other small storage schemes, some of which have already been spotted out There are still others which on closer examination might reveal potentialities for irrigation

Jawai River

The above project which is under execution has a potential of 4000 h. W Hydel power and irrigation of 1,10,000 acres.

IRRIGATIONAL POSSIBILITIES

by Shri M D Mittal

The greatest area under irrigation in Rajasthan is the Bikaner division where the Gang Canal, having a perennial supply of water, irrigates over 7 lakh acres of land The average annual irrigation during the last three years is about 5½ lakh acres Bikaner has been promised supply from the Bhakra project, with the dam on the Sutlej in the Punjab for a commanded area of about 10 lakh acres The annual irrigation expected is 6 to 7 lakh acres This project is likely to start functioning in about 5 years

Harike Canal

Due to a reach of 6 to 7 miles on the river Sutlej above the Ferozepur headworks and Pakistan having constructed a link channel to bye pass the Ferozepur headworks, it is proposed to shift the Ferozepur headworks of Gang Canal system to Harike, 25 miles above the river loop in Pakistan territory, so that the head works as well as the connecting link may lie entirely within the Indian Union The most important gain to Rajasthan by this proposal will be that 3 to 4 months supply of water for irrigation would be obtainable for an extra area of 60 lakh acres in Jodhpur Bikaner and Jaisalmer for maturing Kharif and sowing Rabi crops Water may also be utilised over 140 lac acres of land by gradual lifts upto 300 feet for which power from the Bhakra dam will be available A portion of this area roughly 200 lakh acres can derive perennial irrigation facilities by harnessing the tributaries of the Jamna or by *constructing dams on the Beas* as also by the construction of the Marhu tunnel from the Chenab to the Ravi and the Madhopur Beas link

In former Rajasthan there are only small storage tanks some of which have canals emanating from them Others are only bed cultivation tanks. The total annual irrigation is

DEVELOPMENT OF HYDRO-ELECTRIC POWER

by Shri V A Aiyer

There are two rivers, namely the Chambal and the Wakal, in the Rajasthan Union, along which Hydro Electric Power can be developed

River Chambal

This river takes its rise on the northern slopes of the Vindhyan range about 20 miles south-west of Mhow in the Madhya Bharat Union It flows through the Madhya Bharat and Rajasthan Unions, and near its infall, in the United Provinces, and falls into the River Jamuna after a course of about 600 miles It drains a total area of 55,000 square miles upto its mouth and about 10,000 miles upto the power dam sites mentioned below

The possibilities of power development on this river within Mewar and Kotah limits of the Rajasthan Union were recognised over 5 years ago Two schemes for the above development, one by building a dam and power station near Bhainsrorgarh in Mewar limits, and the second by building a dam and power station above Kotah, were being investigated since 1945, in combination with another scheme higher up on the river in Madhya Bharat limits Plans and estimates have now been prepared for all these schemes which are found to be quite feasible and economic The two schemes in Rajasthan are likely to yield, even in years of very poor rainfall, about 62,000 Kilo-watt (continuous) of power at a cost of about fourteen crores of rupees (including transmission) This will satisfy a total factory load of over 1,00,000 Kilo-Watt or 1,30,000 Horse Power There is also an alternative scheme, consisting only of two stations, both in Rajasthan Union limits, which will yield over 60,000 Kilo-Watts of power (continuous), even in years of very poor rainfall, at a cost of about eighteen crores of rupees (including transmission)

The scheme is expected to be completed within a period of 2 to 3 years.

Food Potential

As a result of improvements and extensions of existing works and construction of major and minor projects mentioned above it is estimated to bring about 15 million acres of extra land under irrigation annually. Increase in food grains may then be in the order of 5 million tons annually.

Kotah Power Project

The works in this project will consist of a masonry pick-up dam about 10 miles adove Kotah City to hold up the water from the Bhapal power Project, at a high level, and a power station and equipment of turbiness, generators, transformers, etc, with a capacity of 40,000 Kilo-watt of power (yielding a continuous power of 24,000 Kilo-watt) The water from these turbines will pass into the river and be picked up at the Barrage mentioned below.

Kotah-Bundi Irrigation-Cum-Power Project

The works in this project will consist of a masonry barrage, about 8 miles below Kotah City (like the Sukkur Barrage on the River Indus), 2,000 feet long and about 60 feet high, which will have sufficient openings in it to pass the floods through them during the monsoon. These openings will be closed with large steel gates 50 feet wide and 30 feet high, as far as is necessary for passing the flow in the river without exceeding the safe level fixed above the barrage for irrigation purposes. Canals will be dug above the barrage on either side The canal on the left will pass near to the Kotah Bundi road, and flow within a few miles of Bundi and the hills towards the east It will irrigate about 1,00,000 acres. The canal on the right side will flow towards the river Kali Sindh, and be taken across it by an aqueduct. It will irrigate about 1,00,000, acres in the Kotah State, and then pass into Gwalior limits in the Madhya Bharat Union. The area that will be irrigated by the two canals consists of a fairly level tract with dry fertile loamy soil which will add at least half a ton of wheat per acre with adequate irrigation facilities This would yield about 1,00,000 tons of foodgrains (with other catch crops in the Kharif season) in the Rajasthan limits alone.

The irrigation will utilise the flow coming down from the power stations above, only for a few months in the year. During the remaining portion of the year, the water will be let down past the Barrage into the river, through turbines, thus generating about 12,000 Kilo-watt of power, during this period.

Irrigation and Power Development

Since the merger of the States and the formation of Rajasthan, the question of combining irrigation with the power development as part of the 'Grow More Food Campaign", was examined, as a large quantity of water will be continuously passed down from the last of the above power stations. It is found that a barrage about 60 feet high can be built across the river about 6 miles below Kotah, and water taken along canals to irrigate about 2,06,000 acres in Rajasthan limits and 4,00,000 to 5,00,000 acres in Madhya Bharat limits. A Technical Board consisting of representatives of the central government and the governments of the above Unions has been formed to co ordinate and finalise the schemes. This is almost complete for the power schemes. Preliminary works connected with the execution of the first of the above schemes in Rajasthan (called the Bhupal Power project) are in progress.

Bhupal Power Project

The works in this project will include a masonry dam about 120 feet high and over 3,500 feet long across the river Chambal, near Rawatbhata village. It will store about 60,000 million cubic feet of water. It will serve as a balancing reservoir, in the three-dams scheme to receive the flow from the Madhya Bharat Power Station higher up, and augment it to some extent. A canal 42 feet wide and 18 feet deep will carry up to 5,000 cubic feet of water per second for a length of over 6 miles. At the end of the canal there will be a drop of nearly 200 feet into the Khadap-ka [illegible] (which falls into the river Chambal half a mile lower down). Here a power station, with an equipment, consisting of turbines, generators, transformers, etc., will be erected, with a capacity of about 64,000 Kilo-watt of power (yielding a continuous power of 38,000 Kilo-watt at 60% load factor). The water from these turbines will pass into the river and be picked up at the dam mentioned below.

INDUSTRIAL WELFARE

by Shri Siddha Nath Shukla

Welfare activities according to Rege Committee include anything done for the intellectual, physical, moral and economic betterment of the workers, whether by employers, by government or by other agencies, over and above what is laid down by law or what normally expected as part of the contractual benefits for which the workers may have bargained. Thus, under this definition we may include housing, medical and educational facilities, nutrition (including provisions of canteens), facilities for rest and recreation, Co operative Societies, day nurseries and creches, provision of sanitary accommodation, holidays with pay, social insurance measures undertaken voluntarily by employees alone or jointly with workers, including sickness and maternity benefit schemes, provident funds, gratuity and pensions etc

Welfare Measures

Welfare measures such as educational facilities, sports, entertainment etc, contribute a great deal towards the maintenance of industrial peace which is so essential for economic advancement of the nation. When the worker feels that the employer and the State are interested in his day to day life he would like to make his lot happier in every possible way, his tendency to grumble will disappear, Secondly better housing, provident funds, gratuity, pensions and such other things are bound to create a feeling amongst the workers that they have a stake in the industry as much as any one else, and the present situation under which labour turn over and absenteeism prevail will yield place to new situation in which the working class becomes more stabilized and economically efficient. Thirdly, the special advantage even apart from humanitarian value of such activities are considerable. Thus, the provision

River Wakal

This river rises in the interior of the Aravali Range, south of Gogunda in the Mewar State. It drains an area of about 650 square miles and falls into the river Sabarmati. It is possible to build a dam about 150 feet high below Panerwa and take the stored water through a tunnel towards the south to the Khed-Brahma plains, with a fall of about 600 feet. About 7,500 Kilo-watt (continuous) of power can be generated at this site. This will be investigated during the current year.

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Government Activities

Recently the attention of the central as well as the provincial governments has been drawn towards Industrial welfare. The Ministry of Labour has formed a definite policy regarding labour welfare The Rajasthan Government has proposed to create a Labour Board, which will create harmonious relations between the management and labour and thus better the social, moral and economic conditions of the labourers The Board will function under the Presidentship of the Minister of Labour with mostly non-officials as members and the Labour Secretary, Labour Commissioner and Director of Industries as its ex officio members It will chalk out schemes of providing medical, educational, recreation, maternity and baby welfare facilities to labour by establishing five welfare centres in five main places of the Union and the Government have allotted a sum of rupees one lac to be utilised by the 31st March, 1950 In the newly born Labour Department, which is organised on the latest line, due importance has been given for labour welfare by proposing for a team of well qualified labour welfare officers whose main duty would be to organise labour welfare activities in the Union For looking after the welfare of women workers, the government is considering the appoinment of a lady welfare officer

The government are always keen to see that harmonious relations are maintained between employers and employees so that productivity and efficiency of workers do not suffer There has been no major strike or lockout in Rajasthan for the last six months except that the Maharaja s Kishangarh Mills remained closed for some time due to shortage of cotton

In order to increase the general standard of living of workers of the mica mines and manufacturing industries of the former covenanting State of Mewar, the ruling of the former Rajasthan Government regarding the payment of increased wages, dearness allowances and bonuses was clarified The total benefit which may accrue to workers under this award

of canteens where cheap clean and balanced food is available to workers must improve their physique, entertainment must reduce the incidents of vices, medical aid and maternity and child welfare must improve the health of workers and their families and bring down the rates of general, maternal and infant mortality, and educational facilities must increase their mental efficiency and economic productivity.

Industrial Welfare Research

The Indian industrial worker has been condemned as lazy and inefficient, but as pointed out by the Bombay Textile Labour Enquiry Committee, "It is axiomatic that in all pursuits a high standard of efficiency can be expected only from persons who are physically fit and free from mental worries, that is, only from persons who are properly trained, properly housed, properly fed and properly clothed Hence in spite of welfare activities, it is desirable to have an institute of Industrial Welfare Research, where question of fatigue hygiene and unrest can be fully investigated and the result utilised for advancing both industrial efficiency and human well being

Next comes the question of agency which is likely to be the most suitable for carrying out the welfare activities There are certain measures which easily fit into the factories set up and, therefore, appropriately belong to the category of measures to be undertaken by employer These include for example canteens creches and recreational facilities Certain other measures for example educational and medical facilities may be regarded as more appropriately subject for State action In regard to other measures the precise sphere of employees may have to be demarcated and the responsiblities shared by them and the State There is the third agency also namely trade unions which also carry out welfare activities for its members

Let us now review welfare work done by the above mentioned agencies in Rajasthan

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may be nearly Rs. 7 to 8 lacs. The Mewar Textile Mills, Bhilwara, voluntarily agreed to pay to their workers bonus in the year 1948 equivalent to their 2¾ months' wages. The wages and dearness allowances of workers in Maharaja's Kishangarh Mills, Kishangarh, and the Mewar Textile Mills, Bhilwara, were also fixed.

Labour Legislation Committee

With a view to provide legal facilities to the workers the Government have appointed a Labour Legislation Committee to adopt all such labour laws of the central and provincial governments as may be suitable to the Union. Important legislation regarding payment of wages maternity benefit, factory inspection, weekly holidays etc., have been recommended for adoption.

Retrenchment should not be such as to distrub the economic equilibrium of the province, With a view to achieve this policy, the government have recently issued an order directing the owners of the mica mine manufacturing industries of the former covenanting State of Mewar, not to adopt any retrenchment till it is approved by a committee consisting of the Labour Commissioner *as its convener, Director of Mines,* and two representatives, one of labour and the other of the mica mine owners. This gives protection to workers against victimization or sudden retrenchment.

The government also set up a committee under an independent chairman to go through the question of wages, grades, dearness allowances, holidays with pay, provident fund, cheap grain facilities etc., regarding the workers of the government owned power houses.

Apart from the factory and mine workers, the government are also eager to see to the welfare of the agricultural labour, which forms the bulk of the population of the Union and on whom also lies its real economic prosperity. It has adopted the scheme of the government of India for carrying out a survey of tde agricultural labour conditions in Rajasthan which would facilitate the government to base the future policy in this regard.

Employment Exchanges

The employment exchanges are functioning at present in Jodhpur Jaipur, Bikaner and Alwar In Jodhpur out of 5572 registrations of ex servicemen, placings have been 2421 The work of the Jodhpur employment exchange was well spoken of by the Director General of Resettlement and Employment, Government of India In Jaipur the percentage of placings to registrations is 25%, a record which is the best one in the country

Workers have been trained in technical training in Jaipur technical traning centre and in the vocational training at the local cottage Industries Institute where instructions were imparted in cotton weaving, woollen weaving tailoring, dyeing and printing and blacksmithy In Alwar efforts were made to start similar institutions for training workers The Minister for Labour during his recent visits to Mysore, Bangalore and Hyderabad studied the latest experiments in providing cheap and comfortable houses for workers which will also be implemented in Rajasthan in due course

Employers Activities

Everywhere the employers have found a number of excuses for not investing sufficient money in labour welfare activities As Dr B R Seth has aptly remarked, 'the vast majority of industrialists in India still regard welfare work as a barren liability rather than a wise investment As a matter of fact except a few textile mills and metal factories, a cement factory, sugar mills and oil mills rest of the factories in Rajasthan are small ones Naturally, except the above mentioned establishments, it is not possible for the employer of small industries to carry out the welfare work for their employees to a very great extent These small factories have [illegible] tried to carry out the provisions of Factories Act by providing first aid boxes, small dispensaries provision for cold water in summer shelter for taking meals latrines urinals

The big factories are providing free medical services run schools for workers children, canteens and creches Some of

may be nearly Rs. 7 to 8 lacs. The Mewar Textile Mills, Bhilwara, voluntarily agreed to pay to their workers bonus in the year 1948 equivalent to their 2¾ months' wages. The wages and dearness allowances of workers in Maharaja's Kishangarh Mills, Kishangarh, and the Mewar Textile Mills, Bhilwara, were also fixed.

Labour Legislation Committee

With a view to provide legal facilities to the workers the Government have appointed a Labour Legislation Committee to adopt all such labour laws of the central and provincial governments as may be suitable to the Union. Important legislation regarding payment of wages maternity benefit, factory inspection, weekly holidays etc., have been recommended for adoption.

Retrenchment should not be such as to distrub the economic equilibrium of the province, With a view to achieve this policy, the government have recently issued an order directing the owners of the mica mine manufacturing industries of the former covenanting State of Mewar, not to adopt any retrenchment till it is approved by a committee consisting of the Labour Commissioner as its convener, Director of Mines, and two representatives, one of labour and the other of the mica mine owners. This gives protection to workers against victimization or sudden retrenchment.

The government also set up a committee under an independent chairman to go through the question of wages, grades, dearness allowances, holidays with pay, provident fund, cheap grain facilities etc., regarding the workers of the government owned power houses.

Apart from the factory and mine workers, the government are also eager to see to the welfare of the agricultural labour, which forms the bulk of the population of the Union and on whom also lies its real economic prosperity. It has adopted the scheme of the government of India for carrying out a survey of tde agricultural labour conditions in Rajasthan which would facilitate the government to base the future policy in this regard.

PUBLIC SERVICE COMMISSION

by Shri Shyam Sunder Sharma

Looking to the history of the Public Service Commission in India, we find that though the establishment of the Public Service Commission was contemplated under Section 96 (c) of the Government of India Act, 1919, no action was taken until the Lee Commission stressed its need in 1924. A Public Service Commission for the Central Government alone was set up in 1926 at Simla but nothing was done in the provinces The Statutory Commission appointed to draft the Government of India Act of 1935 recommended the setting up of the Public Service Commission in all the provinces to relieve the Ministers from the technical work of recruitment and to protect them from being exposed to the charges, however ill-founded, of using their position to promote family or communal or party interests at the expense of fair and just administration Their recommendation which was accepted by the Government came to be embodied in the White Paper and was finally incorporated in the Government of India Act of 1935, articles 263 268

Nearer home Jaipur set up a Public Service Commission in 1940 and it is to the credit of the Jaipur Government that without giving any mandatory powers to the Commission, the Commission's advice was always accepted and its wishes respected The Jodhpur Government set up the Public Service Commission in 1939, even earlier than Jaipur, and [illegible] Public Service Commission came into existence in [illegible] The former Rajasthan and the Matsya Union did not [illegible] it necessary to set up an independent body like the Public Service Commission nor had they time to do so as the Greater Rajasthan came close on their heels

Soon after the formation of the Rajasthan Government a separate Public Service Commission on provincial basis was

them have begun to provide houses to their employees though much is to be done in this direction. Mine and factory owners will be persuaded to give due attention towards labour welfare because expenses thus incurred are not wasted but are a permanent investment and satisfied labour is the most important asset of an industry.

Trade unions which are of recent origin and have just begun to come into existence are also striving to provide welfare facilities to their members As their financial position strengthens, their field of operation in this respect will widen.

With the growth of industrialisation and with the close co-operation of the Labour Department, employers and trade unions, the progress of industrial welfare in the Union will be accelerated making life of a worker more pleasant, healthier and happier.

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In addition to the above functions the Public Service Commission will tender its advice on any matter referred to it and also on any other matter which the Rajpramukh of the State may specially refer to

Under the constitution of the Indian Republic, which is also the Constitution of the Rajasthan Union, a member of the Public Service Commission could be removed from his office only by an order of the Rajpramukh on the ground of misbehaviour after the Supreme Court has on enquiry held that he ought to be removed The expenses of the Public Service Commission will be charged to the consolidated fund of the State It will also be the duty of the State Commission to present a report to the Rajpramukh as to the work done by the Commission with a memorandum explaining as respects the cases, if any, where the advice of the Commission was not accepted and the reasons for such non acceptance to be laid before the Legislature of the State

A Statutory Body

The Public Service Commission is thus contemplated to be a Statutory Body like the High Court and to be quite independent It is neither a department of the State nor a part of the Secretariat The budget of the Public Service Commission is also not subject to the vote of the Legislature Thus the independent status of the Commission is kept in view of the work that it is expected to do It is a body which not only recruits persons for all appointments in the Civil Service but also one which protects the interests of the Government servants and acts as an appellate court against the orders of the Government The members are supposed to discharge their duty without fear or favour as they cannot be appointed to any other post in Government of India or of a State on expiry of their terms of office in the Public Service Commission

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constituted for the whole of Rajasthan and Sri Surat Kumar Ghosh, the Chief Justice of the Jaipur High Court, was appointed as its first Chairman. Pt Devi Shankar Tewari, ex-Education Minister Jaipur, was appointed as Member of the Rajasthan Public Service Commission on April 30, 1949. Shree N. R. Chandorkar, a retired civilian of the C P Government who was also the Administrator of the former Matsya Union, was appointed as the Second member on October 14, 1949 Pandit Shyam Sunder Sharma was appointed as the first Secretary The present Chairman is Shri S. C Tripathi

Rajasthan Public Service Commission Ordinance

The Rajasthan Public Service Commission Ordinance, 1949, was passed on August 16, 1949

According to the above Ordinance the Commission would conduct examinations for appointments to the services of the State It will be consulted on all matters governing recruitment to civil services and for civil posts, principles relating to appointments to civil services and posts as also promotions and transfers from one service to another and on the suitability of candidates for such appointments, promotions or transfers The Public Service Commission will also look into all disciplinary matters affecting a person serving under the Government of the State in a civil capacity, including memorials or petitions relating to such matters Besides, the Commission will also be consulted on any claim by or in respect of a person who is serving or has served under the Government of the State, in a civil capacity, that any costs incurred by him in defending legal proceedings instituted against him in respect of acts done or purporting to be done in the execution of his duty should be paid out of the consolidated Fund of the State, on any claim for the award of a pension in respect of injuries sustained by a person while serving under the Government of the State in a civil capacity and any question as to the amount of any such award.

Moryas, Guptas and Verdhan dynasties temporarily arrested decline and re-asserted supremacy.

Throughout these times, the Armed forces of the country maintained their reputation for professional proficiency and high valour. With a well defined moral code of warfare and chivalry, never were they found guilty of using the hidden daggers of cunning treachery even against their vilest enemy. They always discarded the modern weapon of surprise as they believed in assertion of open superiority through personal unalloyed valour, strength and skill

Spirit of Resistance

On account of foreign domination, the ruling houses of the country diverted and contracted into this land of Rajasthan and with them drifted the might of the country. During the Muslim period and up to the time of Akbar this country always kept alive the spirit of resistance. It was during this period that the Rajasthan Armies produced such great military leaders as Rana Sanga, Raja Maldeo, Maharana Bhagwant-Dass, Maharana Pratap, Maharaja Man Singh I, one of the greatest generals that the world has ever produced and so many others. The reign of the four great Moghuls down from Akbar witnessed the soldiers of Rajasthan fighting in ever corner of the Mughal Empire. On many occasions they were also stationed in Kabul and Kandhar as garrisons for keeping the turbulent Pathans under subjugation. They have always displayed their indomitable valour in every battle and secured the high esteem of forming the vanguard of the force.

Military Leaders

In the days of general insurgence which followed the repressive and intolerant policy religiously adopted and ruthlessly persecuted by Aurangzeb, the Rajput Armies proved their mettle under such great military leaders as Maharana Raj Singh, Mirza Raja Jai Singh, Maharaja Jaswant Singh Veer Durga Dass, Maharaj Karan Singh, Maharaj Chattar Sa

RAJASTHAN ARMY

by Brigadier Jaswant Singh

The Army of heroic Rajasthan is not of recent origin, as some people are apt to think on account of its late modernisation in the wake of the Indian Army Its history could be traced to the ancient times, dating as far back as the Aryan race itself, with its glorious traditions found unsurpassable in the world s history of the Army

It does not require any stretching of human imagination to believe that with its predecessor Army the Aryans descended from the cold central Asian altitudes down to the Indo Gangetic plains, and gradually, through the ages by alternate use of force and persuasion, secured a simultaneous extension of their domain in all directions till it touched the natural boundaries of this Aryawart land dexterously and mercifully provided in the form of high mountains and deep seas Later, the ancient Aryans with the help of their Armies successfully warded off foreign military excursions, maintained peace and tranquillity in this land for centuries and thus facilitated the development of literature art and philosophy

Dissension and Division

After centuries of greatness vagaries of fate betook the land following foreign invasions and internal dissensions which led to political vivisection attended by split in military might and decline in physical prowess The country was divided into numerous States which on account of mutual suspicions never presented a united front against foreign threats Thus one State after another succumbed to submission separately, and subjected the entire country into gradual subjugation Such were the days that after the battle of Mahabharat which culminated a glorious chapter of the country's incessant greatness, the combined Armed forces under the leadership of

Moryas, Guptas and Verdhan dynasties temporarily arrested decline and re-asserted supremacy.

Throughout these times, the Armed forces of the country maintained their reputation for professional proficiency and high valour. With a well defined moral code of warfare and chivalry, never were they found guilty of using the hidden daggers of cunning treachery even against their vilest enemy. They always discarded the modern weapon of surprise as they believed in assertion of open superiority through personal unalloyed valour, strength and skill

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support and assistance of the Rajasthan Armies, they were able to extend their territorial gains and also consolidate and maintain their position. But as soon as their sympathies were alienated, instantaneous disintegration reduced the great Mughal Empire to shambles and ruin. The Rajasthan Armies did not fight any major battle against the English on account of the prevailing political situation in the country as also due to certain mutual recrimination which came in the wake of the resurging Marhatta power which failed to rally the Rajputs with them. The British reached Rajasthan and adopting the position of a succeeding power to the Mughals they securely established their supremacy. The Rajasthan Princes who regarded the Mughals as "dejure" sovereigns, accepted the British in their place. The British who were politically more shrewd than the Muslim conquerors, did not try to interfere with the institutions and customs regarded sacred by Rajputs and thereby secured their co-operation and good will.

Rajasthan Armies in Various Campaigns

During the British reign, the Armies of Rajasthan fought in all the major and minor compaigns. The Jodhpur Lancers and the Ganga Risala took part in the Chinese War. Later on, the Ganga Risala which was sent to Somaliland, for suppressing the Mutiny, played a prominent part. During World War I, the Sardar Risala fought in France, and the Jaipur Transport Corps was employed in the Middle East. The Jaipur State Transport Corps played an important role in winning the battle of Shaiba and captured innumerable enemy weapons and equipment. This is the only service corps unit in the whole history of the army which has won a battle honour.

Our Army played a very significant part in the Second World War in the theatres of operations, except the Western front. The 1st Bn (Yuvraj Bhawani Singhji's Own) Jaipur Infantry, Sawai Man Guards and Jodhpur Sardar Infantry operated against the Germans in Italy and in the Middle East, and won many gallantry awards and decorations. Bijey

Battery took part in the Burmah operations. Jodhpur Lancers, Jey Paltan Alwar, Mewar Infantry, and Kotah Umed Infantry were sent to the Middle East where they distinguished themselves in maintaining internal security in the Middle East countries, and thus keeping open the line of communication Bijey Battery and Jaipur Pony Company fought against the Japanese on Eastern front, and were instrumental to an extent in driving them from the doors of our mother country. Some of the units were employed in India on garrison duties, and in training establishment for demonstration purposes. Even after the war, Sawai Man Guards and Jodhpur Sardar Infantry were sent to China for garrison duties

Army's Role After Freedom

It would be needless to recount the part played by our forces after the advent of freedom in the country since it is of recent occurrence to be within the living memory When the country was plunged into a state of anarchy and lawlessness on account of irresponsible communal insanity, our Armed forces stood the test and carried out the orders of the Government faithfully, and maintained law and order Our forces remained true to their traditions, and kept up a high degree of discipline Never did they falter in complying with orders even when such orders entailed utmost personal hardship In addition to the restoration of peace and tranquillity our forces had also to guard the newly created artificial border line which extended for about 750 miles against regular as well as irregular enemy of unscrupulous morality

Service in Kashmir

This apprehension came out to be a proved fact in Kashmir when that fairy land was plunged and its people subjected to untold miseries by the barbaric enemy hordes In this grave hour, our forces were placed at the disposal of the Government and the credit in large measure went to Sawai Man Guards which played a great part in protecting the line of communication and thwarting the unholy enemy designs by driving

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him away from the valley of Kashmir This unit which had already been in active service for about 6 years during World War II was again given this enviable opportunity to defend the frontiers of our free country and was relieved after about an year's service. One of our units, the Kotah Umed Infantry, is still in Kashmir, whereas Jey Paltan and Bijey Battery are at present in the East Punjab and 2 Jodhpur Infantry at Kamptee

When the Government of India launched their 'Police action against Hyderabad, one of the units of the Rajasthan Army, the Mewar Infantry, was responsible for a proportionate contribution towards the achievement of fruitful and speedy results

Thus, in addition to our own work with regard to internal and external defence, assistance was always rendered to the Government of India in the hour of due need.

The Oldest Army

An attempt has been made to survey briefly the historical transformation and the part the Rajasthan Army played since its inception Of all the Armies in India including the Indian Army Rajasthan Army is the oldest, and is the real successor representing continuity of the Aryan Army through the eras of Rama, Pandavas Moryas and Guptas It has successfully weathered all misfortunes and tribulations in the whole course of history, and has throughout maintained discipline and loyalty to authority No other Army in the world has such a proud record. During its long career it has witnessed immense changes in the technique of warfare and armament, and to all these changes it has adopted with grace and ease. During all the varying experiences, it has also attained great proficiency. With the pace of time, our Army has changed over to mechanised cavalry and artillery, mortar and machine gun. Now it has got all the modern weapons which our financial resources and political expediency could permit In training, endurance, discipline and in other features that go to compose a good army ours is second to none. What has

been stated above is not in self praise but is a fact which has been universally recognised in the past and will be further proved in future as well Such is the Army of Rajasthan of which all should feel proud

Rajpramukh s Distinguished Leadership

Having dealt with the past an attempt will now be made to deal with the present On the formation of the Greater Rajasthan all the forces of the Covenanting States varying in size skill armament and status have been consolidated into one solid force under the distinguished leadership of His Highness Maharaja Sri Sawai Man Singhji Bahadur G C S I G C I E LL D Rajpramukh of Rajasthan who combines in himself all the rare qualities of a soldier and a prince As the Rajpramukh of the Greater Rajasthan His Highness the Maharaja of Jaipur is the highest authority in all military matters since questions relating to defence come directly under him As the supreme head of our armed forces His Highness has also assumed the operational command of the Rajasthan Army, and thus his vast experience as a soldier statesman and leader his keen insight in human affairs and his natural tact in handling tense situation are always forthcoming in the form of instructions, directions and orders The Woolwich trained Maharaja true to the martial tradition of his house had been to all the theatres of World War II comprising of the Middle East Italy, Persia and Iraq, Burmah and South East Asia and also the recent Jammu and Kashmir operations This soldier prince was an officer of Life Guards and took part in active role with this regiment in Syria and Palestine in 1941, and subsequently received his higher military training at Staff College, Quetta

His Highness the Rajpramukh has already visited all important military establishments and installations and has extensively toured the Rajasthan Pakistan border with a view to check up the troop dispositions and the probable future operational sectors

Organisation and Administration

The whole of our Army has been organised on a command basis with appropriate departure suiting its administrative as well as operational role. The Command Headquarters (HQ. Rajasthan Command) is situated in Jaipur in the south block of the Bhagwant Dass Barracks. Next to His Highness comes the General Officer Commanding which appointment has recently been filled by Brigadier U. C. Dubey of the Indian Army in pursuance of the policy of consolidation and integration of defence forces of the country. The Principal Staff of officers in the HQ is known as the Chief of Staff who is assisted by adequate number of I, II and III grade Staff Officers. Brigadier Jaswant Singh, s.c. is the present Chief of the Staff. As all powers regarding militery matter vest in His Highness the Rajpramukh according to the terms of the convenant, all sanctions and orders emanate from this HQ.

From Administrative point of view, the whole of Rajasthan has been divided into the following :—

BIKANER Area—This comprises exclusively of the former Bikaner State territory and is most important, as our boundary line touches the West Punjab, and Bahawalpur State. In this area trans-border raids are of common occurience which require a very skilful disposition of troops who must remain on toes constantly to check them.

JODHPUR Area—It consists of the former States of Jodhpur and Jasailmer. It has also got a very long boundary line to defend.

JAIPUR Area—This Area includes rest of Rajasthan and is the largest in size.

ALWAR Sub-Area—It consists of the former States of Alwar, Bharatpur and Dholpur and comes under the Jaipur Area for administrative purposes.

UDAIPUR Station—This Station has under it Udaipur, Kherwara, Dungarpur, Banswara and Partapgarh This Station is also under the Jaipur Area

KOTAH Station—This Station is directly under the Head quarter Rajasthan Command

Like other State Forces, the Rajasthan Army is linked with the Defence Department of the Government of India through the Military Adviser in Chief whose Headquarters are situated in New Delhi This Headquarter is attached to the Ministry of States and all correspondence between the Headqurter Rajasthan Command and any Department of the Army Headquarters, New Delhi, takes place through it This link is playing a very important role, as our Army also forms part of the defence system of the country, and also because of our dependence for training, arms, ammunition and other stores on the Indian Army sources In all problems of defence as well as internal security and in all other matters of common interest, a very close liaison and co operation are maintained with the Indian Army

Troops have been allotted to the above areas and stations according to importance and magnitude of task and availability of accommodation Distribution of the troops within the area depends also on local situation and varies accordingly In addition to these daily duties, the troops carry on their training and keep themselves to date for ulti mate object As already stated above, some of our units are still ex State placed at the disposal of the Government of India and will remain there till required

Three fold Duties

The tasks which have fallen to the lot of Rajasthan Army are three fold—

(a) Primarily to defend India against external aggression and possible invasion

(b) Secondly to defend border against minor raids mo tivated by loot and political instigation

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in length with an arid desert on both sides extending roughly 20 to 30 miles full of sand dunes except in the north for about 200 miles This portion forms part of the great Indo Gangetic plains, exploitation of its fertility having been fully facilitated by an irrigation system known as Gang Canal, contrived and constructed by the sagacity and planning of Maharaja Sri Ganga Singh The canal, which is about 20 miles within the border, runs almost parallel to it This part which may be called the granary of Rajasthan, requires utmost protection against possible raids from across the border so that its dense population may prosecute its vocation of cultivation unharassed The border which does not provide any natural barrier can be crossed at any place and at any time It is then that the border defence schemes and the personnel responsible for their formulation and execution down to a sepoy are placed to utmost trial

The rest of the border is very thinly populated and is likewise valuable to undetected crossing by the raiders on foot, horse, camel or vehicle In this area, water is very scarce and its situation determines the location of troops Movement of the troops and supplies through the sand dunes is always a problem Moreover, the area being deficient in many respects all supplies have to be arranged from outside Climate, though dry and healthy is extreme and inhospitable Throughout summer frequent sand storms cause sand dunes to sift sites ontinuously.

Vegetation which would have exercised moderating influence on inclemency of climate and whim of moving sand is conspicuously absent

Interval Security

As regards the third task internal security is the primary responsibility of the police The army assists and interferes only at the invitation of the civil authorities It takes direct control only when the civil administration collapses or the situation gets out of control But the presence of the Army within an area has always the sobering effect on the irresponsible and mischief - minded section of the population

(c) Thirdly to assist the Government when asked to give such assistance in order to enable it to maintain law and order

As regards first task, in case of war, there is possibility that enemy might attempt to cross the Rajasthan-Pakistan border It is very difficult to say in which part of the frontier enemy will make such attempt, yet it is apparent that northern part and especially the Canal Area provides better temptation It is however, contrary to the modern conception of warfare that a lone battle would take place at one place or in one small sector There will be general flare-up all along the frontier where the contending Armies will lock up themselves

In such a case our troops will have to perform difficult task of holding the enemy's initial thrust in check and blunting its spearhead till defence system of our country is adjusted to meet this danger We also understand how difficult this task is and what sacrifices we must be prepared to make

The second task which our Army is performing at the moment is very exacting, as it requires very untiring patience The immediate task for the Army of Rajasthan is to secure for our border population immunity from the raids undertaken by the small and large parties of free-looters, of political upstarts, of religious fanatics and of semi officially sponsored nerve feelers, to harass and kill our peace loving citizens and loot their property The Army of Rajasthan fully understands the magnitude of this task which manifests itself all the more because of large space involved and also uncertainty of raids Yet the Army is always ready and confident

With a view to provide counter action and forestall enemy movements adequate number of troops have been distributed all along the frontiers on strategic points On many occasions such distribution of troops have completely baffled the enemy

Border Defence

Our troops thus guard a border approximating 750 miles

EDUCATION

by D L Sharma

Rajasthan having, till very recently, been composed of a number of Indian States, some small some big, had lagged behind in progress when compared to other provinces of the Indian Continent In industrial, political, social as well as in the educational sphere it has not made much progress during the last century or so In addition to the political fragmentations, the geographical conditions of this area have also stood in its way of advancement A large part of Rajasthan is a desert area which is scarcely populated and is not easily accessible In the non desert parts also there are no easy means of transport and communications

Number of Institutions

At present the number of educational institutions in Rajasthan are as follows —

Primary Schools	3,957
Middle Schools ...	665
High Schools	147
Colleges .	30
Others ...	938
Total	5,737

The number is very small as compared to that in other provinces or states which are comparable in population The distribution of these institutions is also very uneven For instance, the Jodhpur Division which is largest in area and which approximately stands third in population has less than 500 institutions, whereas the Kotah Division which is not only the smallest both in area and population and less than half of the Jodhpur Division in both, has over 500 educational institutions

Apart from what has been mentioned above, in the hour of need the Government can always depend upon its Army, especially during such occasions when existence of society is threatened by calamities of tremendous magnitude leading to disintegrating stress on the administrative machinery such as floods, famines, strikes etc.

In the above lines, an attempt has been made to survey briefly the past record and the present role of our Army. Its past has been *glorious, untainted and unrivalled in achievements* and honour in the whole history of mankind. We, of the present, fully understand this legacy of our past and look upon future with confidence and determination. Whatever may happen, this Army assures the people of Rajasthan in particular and of India in general that the glory of our land will be upheld at all costs. The Army will never let the country down. Every drop of our blood is pledged for the safety and protection of the people and their property and also for the honour of our land Misfortune sometimes descends with something fortunate. Likewise vivisection of our country has given us the singular honour and pleasure of being the frontier province.

Secret of this honour and pleasure lies in assumption of the role of the custodian and guardian of the new-born freedom of our country which would provide opportunity for making unlimited sacrifices We the people and Army of Rajasthan have done so in the past and will demonstrate the same in future with grace

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Number of Students and Teachers

The number of pupils and teachers in these institutions during the academic session 1949 50 is as follows —

		No of teachers	No of Pupils
1	Primary Schools	10,842	1,87,229
2	Middle Schools		
3	High Schools	2 527	41,579
4	Colleges .	653	9,358
5	Others .	1,368	17,812
	Total .	15,390	2,55,978

The total number of pupils thus forms nearly two percent of the total population of Rajasthan and 248% of the school going age population Although this figure is not very big yet it is not a correct measure of literacy in Rajasthan A large number of the educational institutions have sprung up very recently and they cannot be said to have substantially added so far to the educational or literary progress of Rajasthan Then allowance should also be made for a very large number of such pupils who, due to their short stay at school and the inadequate methods of teaching very soon relapse into illiteracy The percentage of literacy as calculated on the basis of the 1941 census comes to 6·7 for the whole of Rajasthan This figure must have gone up during the last 9 years, as there has been increased educational activities in Rajasthan during this period The estimated percentage of literacy now is 8 5

Quality of Education

So much for the quantity of formal education If we look to the quality of education there is a vast diversity in the standards, equipment, qualification of teachers, their salaries, efficiency and the results achieved by the institutions Except *in one or two former major states of Rajasthan, no concentrated* attention was given to the advancement of education The Education Department received minimum attention In many cases funds were very grudgingly and unwillingly given The

view that education was an important and essential nation-building department had not been accepted and in many cases the interests of the former Rulers went contrary to the objects of educational progress. With the result that today in Rajasthan a very large number of primary schools are ill-equipped, poorly housed and inadequately staffed. More than 50% of our schools in villages have no building of their own and quite an appreciable number have no building of any kind whatsoever, either hired or rented or lent.

Teachers' Meagre Wages

The meagre wages of the village teachers is also a problem which the government has to solve There is a great dearth of adequately qualified or properly trained teachers. Although a large number of our teachers possess the sense of responsiblity, integrity, simple mode of living and realise the need of presenting to their pupils an example of good living yet there is room enough, especially amongst the new ones, for improvement in the standards of behaviour.. Education which rears up good citizens is a specialised art, and this makes it very necessary to train our teachers

Training Institutions

During the last decade there has been a tremendous increase in the number of training institutions all over India, but Rajasthan has been slow in accepting this advancement also At the moment there are in all 14 teachers' training institutions in Rajasthan, with an annual intake of not more than 650 In a vast army of teachers numbering 15,000 a large majority of whom are untrained, this is only a very insignificant number especially when we consider that even at the modest rate of increase in education, which the Rajasthan Government is contemplating to introduce from the next session, over 1750 additional teachers are required each year

It need not be added that there is not only a wide diversity in the courses and the text-books in the different areas of Rajasthan but that there is also a very urgent need of change

and improvement in the syllabus in view of the new set-up of the country and the Union.

A brief sketch of the condition of education at the time of the formation of Rajasthan has been given in the above paragraph. No sooner the new state was formed, the stupendous task of integration unification, re-organisation and reorientation of educational work was taken in hand.

Standardization and Integration

A Conference of all the Directors, Inspectors and other officers of the Education Departments of the various covenanting units was called by the Home and Education Minister of Rajasthan at Udaipur on 19th May, 1949. The Home and Education Minister who addressed the Conference pleaded for a new vision and a new approach which was needed most in the field of education. The Conference then split up into a number of Committees and Sub-Committees which were entrusted with the task of re-organising and resolving the various problems that confronted educational advancement.

Planning and Expansion

An Education Planning and Expansion Office which was set up at Jaipur by the Rajasthan Government dealt with the task of a detailed *survey of the existing educational institutions* and also plans for immediate expansion.

Integration

A blue print of the integration of the Education Department has already been finalised and the posts of the Director of Education, the Deputy Directors, Inspectors, Deputy Ins-*pectors and Inspectresses have been filled.* The *consolidation* and unification of the Education budget has also been completed and the 6 different Departments of Education that were functioning separately have now been brought under one administrative control

New Syllabus

A new *curriculum* for the *Primary and Middle School* has been prepared and is receiving the final consideration of the

Government Many new features such as giving due importance to hindi, handy crafts, general science, social studies etc, have been introduced Due consideration is also being given to the views of experienced teachers and other educationists in framing the new curriculum The Government is also contemplating a new system of writing, publishing and distributing text book which is envisaged to overcome the present difficulties and corruption that have crept up in this trade To facilitate the adoption of the new curriculum teachers are to be provided with proper guidance such as short term training courses etc

Expansion

First priority is being given to the needs of Primary Education A large number of new Primary Schools have been opened About 50 existing Primary Schools have been raised to Middle Schools and 20 Middle Schools to High Schools About 1000 more new teachers would be added to the present schools in Rajasthan

Training of Teachers

The Government have accepted the idea of doubling the intake in all the existing Government Teachers' Training Institutions, and also to open 6 new ones with a strength of 150 each The annual output of Trained Teachers will, thus, come to about 2,500 per year

College Education

A Conference of the Principals was called by the Home and Education Minister Two Committees which formed to work out detailed proposals for introducing changes and modification in the existing systems have submitted their recommendations, which are being considered by the Government

Along with the integration of the different Colleges the Government have under consideration a major scheme to improve the quality and standard of teaching and education in

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Rajasthan is very short of them and unless the required compliment of properly trained teachers is available, basic education cannot be spread As a condition precedent to spread of basic education, the Rajasthan Government has decided to train the teachers in the first instance

Arts and Crafts

Rajasthan has always been a home of arts and crafts, some of which enjoyed the patronage of the numerous courts of Princes in Rajputana The new Government is taking every step to encourage educational activities in the sphere of arts and crafts A survey is being undertaken to collect information on the existing conditions so as to work out a co ordinated plan of expansion

Development of aesthetic taste among the students is also being taken up

Private Agencies

Rajasthan has been fortunate in having a large number of private agencies and individuals who have played a noble part in the field of education Many selfless and devoted workers and an equal number of philanthropists have helped to promote education in the Union The Government is anxious to take due advantage of their good spirit and are, therefore framing new rules and regulations for grant in aid, under which private institutions and individuals can be encouraged and aided in this work of national importance

our Degree and Post-Gradute Colleges. The main basis of the scheme is to have different Colleges specialised in imparting higher education in selected groups of subjects rather than to provide less efficient teaching in a larger number of subjects. When the scheme is finalised and introduced it is hoped that students in Rajasthan will be able to receive a higher standard of teaching in all the Post-Gradute subjects.

Steps are also being taken to encourage democratic methods in the various extra curricular activities of the students so as to inculcate in them a sense of discipline and moral conduct.

University

The University of Rajputana Act is being reviewed and redrafted in the light of both changed circumstances in Rajasthan and the Report and Recommendations of the University Commission, appointed by the Government of India. The Act will soon be modified by an ordinance.

The University is also perparing revised curricula for the High School examinations and a number of new faculties are being added to the existing list.

Adult Education

This aspect of educational work is not only a specialised one but has acquired added importance in the new democatic set-up and adult franchise in the country. At present there are only 485 adult education centres, some of which are run by private organisations, having 8,860 pupils. The government have accepted a scheme of opening 500 new adult education centres, to reorganise the methods of imparting literary and social education to adults, to organise training for adult education workers and to provide equipment such as radio receivers, gramophone, magic lantern, etc. to touring team for adult education.

Basic Education

In Rajasthan there are only 10 full fledged basic schools. The new teache forms the essential core of the basic schools.

Chief Inspector has been empowered also to entertain appeals against the orders of Municipalities where such appeals are permissible under the Law

(ii) Village Panchayats have been placed under a Registrar assisted by a Deputy Registrar at the Headquarters and one Assistant Registrar in each Division In order to co ordinate the activities of Village Panchayats with those of Co operative Societies the Assistant Registrars and Inspectors have been entrusted also with the supervision of Co operative Societies

(iii) Each Assistant Registrar has an office with some staff and each Inspector has one clerk, besides an Assistant Inspector where the number of Village Panchayats in the Circle is more than 50

A Local Self-Government Board has been constituted by the government to promote the cause of local self government in Rajasthan and to advise the government department on its methods and policies There are 21 members with the Minister of Local Self Government as Chairman and a non official has been appointed its secretary A sum of Rs one lakh was set apart for the functioning of the board in 1949 50

The principle of election to local bodies on the basis of adult franchise has been adopted for all such bodies and notified to the public

The basis of communal representation for elections to local bodies has been completely abandoned wherever it was in force

Preparation of electoral rolls on these principles has been taken in hand and new elections of municipalities are being pushed through

A Committee was appointed to frame drafts for uniform municipal laws - one for city municipalities and another for town municipalities It has already prepared a draft for the

LOCAL-SELF GOVERNMENT

by Shri Lakshmi Lal Joshi

The department for Local Self Government in Rajasthan was available in the Secretariats of the integrating States of Rajasthan There was, however, no head of department for all kinds of self governing local bodies in any State at the time of integration

This department looks after municipalities, district boards and village panchayats There were municipalities in all the integrating units but district boards existed only in Jaipur, Bikaner and to some extent in former Rajasthan The village panchayats were well organised and run by a duly constituted separate department only in former Rajasthan In other units they were managed through revenue authorities The number of each kind of institutions was as follows —

Municipalities	137
District Boards	7
Village Panchayats	2300

The following steps have been taken by the government after the formation of the Union —

Reorganisation

In the course of integration the following set up has been sanctioned by government —

(i) District Boards and Municipalities have been placed under the supervision of one officer called Chief Inspector He has got one Deputy and regular office There are three Inspectors under him The City Municipalites have been allowed the freedom of corresponding directly with the government except in matters pertaining to the Budget The

(x) A municipal board may constitute committees for specific purposes Persons other than municipal members may be co opted on these committees

(xi) Wherever they do not possess such powers, the municipalities are being invested with powers to sell government lands within their limits for construction purposes and to credit the income to the municipal funds

(xii) The municipal boards shall have power to impose taxes Government may make the imposition of some taxes compulsory

(xiii) A speedy method for the recovery of municipal dues has been provided for

(xiv) The party aggrieved by an order of the municipal board may appeal to the chief Inspector or any other officer appointed by government in this behalf Revision applications against the order of such officer will lie before government'

(xv) In case of default, incompetence or abuse of powers by the board, the government shall have power to dissolve or supercede it.

It is the policy of this department to have a town municipality in every town with a minimum population of 5 000 A draft Act for city municipalities has also been prepared and is being examined

A draft ordinance of Rajasthan Panchayat Raj has been drawn up and is expected to become Law in the near future The main powers and functions proposed to be given to the village panchayats are as follows —

Village Panchayats

(i) The system of adult suffrage by enfranchising all men and women over 21 years of age is introduced

(ii) To make a panchayat self sufficient and to ensure the availability of capable workers and to obviate local jealousies a number of villages with a population of about 5000

latter, which has also been approved by government. The main features of the draft are as follows: —

Town Municipalities

(*i*) A town or two or more towns which are ordinarily not separated by an extent of more than two miles of land and which has or have a population of at least 5,000 persons may be declared a municipality.

(*ii*) Elections will be held on the basis of adult franchise.

(*iii*) Municipal boards shall consist of elected members, provided that if nobody is elected from amongst backward classes or women, government may nominate women and one member from amongst backward classes as members of a municipal board.

(*iv*) The number of elected members for a town comprising persons upto 10,000 will not be more than 12.

(*v*) There will be only one constituency and no wards in a town with population upto 10 000.

(*vi*) The chairman of a board may be elected by the members of the board from amongst themselves.

(*vii*) The vice-chairman shall be elected by the members of the board.

(*viii*) The chairman and vice-chairman shall be removable by the government for misconduct in the discharge of duties or for neglect of or incapacity to perform his duties or if he is unable to pay his debts i. e if he is under arrest or imprisonment in execution of the decree of a court for payment of money.

The vice-chairman shall be removable also by the board if it has no confidence in him.

(*ix*) A municipal board may require the presence of certain government officers e. g. an engineer or a health officer at their meetings for tendering advice.

(ix) To secure for villagers cheap and quick justice at places near their homes, a provision for the establishment of panchayatynyayalayas has been made

The panchayati nyayalayas will be given civil and criminal powers sufficient for the common offences in rural areas

(x) For the realization of the amount of fines a panchayati nyayalaya is empowered to issue a warrant of simple imprisonment against the offender for a term which shall not exceed one day for every two rupees of the amont of fine remaining unpaid for a period of more than three months

(xi) In cases of accidental death far away in the interior, a panchayati nyayalaya has been empowered to hold enquiries

(xii) Government have reserved certain powers of control In cases of emergencies and for the performances of duties which the panchayats may refuse to perform government may supercede them A village may be excluded from the operation of certain provisions of the Ordinance Civil, criminal and executive powers to the panchayats will be gradually granted in the initial stages instead of all the powers being given all at once

The existing district boards in the former Jaipur unit are nominated bodies and are in their infancy The constitution of the Bikaner boards is also unsatisfactory A new District Board Act has been drafted and is under government consideration

Democracy is in its infancy in India, and particularly in Rajasthan Elected members of local bodies have yet to realise their duties and responsibilities fully and the public has also to be educated in their civic duties This is a great political and social problem which cannot be solved by any amount of legislation The help of private agencies in these directions, will, therefore, be most welcome

have been grouped together to form a village panchayat instead of establishing one panchayat for every village

(*iii*) To ensure a reasonable representation of all villages in a panchayat, it has been divided into constituencies Each candidate standing for election must reside in the constituency which he seeks to represent

(*iv*) To secure due representation of the people of the scheduled castes, provision has been made for the nomination of a panch from these castes in cases where no such person is returned by election This safeguard will last for a period of ten years only

(*v*) The panches have been given the right to put questions on the general administration of the panchayat and the sarpanch is bound to reply within a reasonable time

(*vi*) The functions of village panchayats have been classified into two broad categories namely, those which are primary and those which are secondary

The construction, repair and maintenance of thoroughfares, drainage, sanitation, distribution of medicines, dis infection of the water of village wells, establishment and care of common grazing grounds, regulating the construction of buildings, rendering assistance in extinguishing fire, management of cattle pounds, maintenance of stud bulls regulating the collection, removal and disposal of manure fall under the former group (primary) while planting and maintaining trees filling of insanitary depressions organising the village volunteer force, development of co operation relief against famine extension of Abadi installing radios etc fall under the latter category

(*vii*) The panchayats have been recognised as accredited organs of popular opinion They have been directed to make any representation to the officers concerned about public welfare

(*viii*) The gram panchayats have been given powers of taxation e g octroi, a tax on rents, land revenue, trades or professions, buildings and entertainments.

conditions obtaining in Rajasthan and in the light of positive and negative experience gained with food production campaigns elsewhere The weakness in the 'GROW MORE FOOD CAMPAIGN' has been that it has only stimulated the agriculturist to carry on without strengthening the basic conditions of agriculture

Survey of Conditions in Rajasthan

Rajasthan is a region transitional between the very dry and rainless lower Indus Valley and the plateau of Central India with a good rainfall In between these occur tracts with diversities of climate topography soils and enterprise Natural and human history are so interwoven that the state of agriculture and rural society today are the result of interaction of men and events through centuries

Rural society and agriculture in these regions are generally backward and undeveloped or under-developed They possess many virtues and weaknesses In introducing modern methods care should be taken to nurture the virtues and eliminate the weaknesses That means knowledge of the prevailing conditions and practices of agriculture and adjustment of science to them.

Farming in Rajasthan is predominently of the present type with variations from primitive shifting cultivation and nomadic pastoral life to the most advanced irrigation farming and having all shades of engineering skill and agricultural efficiency Inspite of this diversity there is a core of common problems which can be attacked with advantage in the beginning because of the urgent necessity for increasing food production

Efficiency in production depends as such on the man as on the land and the other resources available Agriculture is vested with the farmer himself and in the land he has been cultivating It is therefore of the utmost importance for enduring results that the work should proceed on the basis

FOOD AND AGRICULTURE

by Dr Vishwa Nath

Rajasthan has immense agricultural potentialities. Prior to the formation of the Union, it was not possible to develop the resources due to financial and/or territorial disabilities. With the formation of the Union, the resources have been pooled together and large contiguous areas for the development of agriculture have become available

The government are responsible for the welfare of the rural masses Food is their foremost need and agriculture, which is the basis for food, is their chief occupation. The service organisation represents the government effort for advancing the welfare of the masses.

The Integration Committee for Agriculture appointed by the government in the month of May, 1949 submitted comprehensive proposals for increased production on a planned basis

What is it That is Wanted ?

The foremost need is an immediate increase in food production The aim of the food production drive should be, firstly, to increase production and, secondly, to stabilise the increase in production by better farming and greater efficiency That means building up a sound system of agriculture Agriculture is not merely raising of crops *It is intimately linked up with* cattle and live stock The land must support the cattle and the cattle must support the land Both together must support the agriculturist who must make a living out of agriculture.

The methods of approach will generally be those adopted elsewhere in India, but with modifications suited to the special

The problem of producing more food must be attacked on more than one front. It is not entirely a question of more water, better manure or good seed. It is the bestowing of simultaneous attention on all the factors that make for increased production, and in good time for the season.

Steps to Increase Production

The methods for increasing production are —

(a) Increasing arable acreage,

(b) Improving soil fertility,

(c) Improving irrigation facilities,

(d) Supplying seeds, manures, implements.

The experience of five years 1943-44 to 1947-48 in Madras shows that the different methods contributed the following percentages of the total average annual increase of 2¼ lakhs of tons of food grains

Fertilizers and manures	34.4 %
Minor irrigation works	25.6 %
Allotment of new land in small parcels	25.4 %
Improveed seed	12.8 %
Wells	3.8 %

Out of a total of 2,85,573 acres of new land, only 1,69,815 acres were actually cultivated and the average return per acre was 755 lbs to the acre. Out of 2,21,204 wells subsidised, only 81,812 wells were completed. The yield of grain per well was 216 lbs. The wells in Madras are small surface *percolation wells*, and are mostly used for growing rice. A very much better performance by wells is to be expected in Rajasthan.

The Starting Point

The village offers the natural starting point. A group of villages having compact area and common features, will make a convenient unit. *Instead of* endeavouring to cover the whole of Rajasthan and dissipating resources, intensive and sustained attention to work in selected groups of villages is to be preferred. That will enable effective graded supervision

that man is more important than material and that the masses of peasant agriculturists should be helped to create wealth and enrich rural life

Self – Sufficiency in Food

The first step is to ascertain the nature and size of the food deficit There are no reliable statistics of production The size of production deficit is not accurately known Guidance must be had from such data as are available The average imports by railway, during the years 1933 34 and 1943 44, works out to 38,800 tons of wheat annually More recent railway statistics are not available The Supplies Commissioner in Rajasthan had stated in a recent communication that Rajasthan is normally deficient

(*a*) in wheat to the extent of 40,000 tons,

(*b*) in rice to be extent of 10,000 tons annually. At Rs 10/ per Maund this deficit means an annual drain of Rs 1,36,00,000 from Rajasthan

Of the total area of a little over 12 million acres over which food crops such as, wheat, barley, gram, gojara (barley and wheat) gochani (wheat and gram), bejhar (barley and gram or wheat), rice, maize, bajra, gwar, sarson, taramira and pulses are grown, wheat and rice occupy approximately 9 5% and 0 35% of the area The staple cereal foodgrains of the great majority of the people are bajra, jowar and maize and these occupy the largest percentages of the area Here again, there is no indication of the size of the deficit But it is evident that these crops must receive greater attention than before

The first step is to plan and programme to wipe out the estimated deficiency by producing sufficient to feed the population without the necessity of imports That depends on the ability to grow the maximum quantity possible That again depends on the facilities available It is necessary to ascertain as work proceeds, the means by which and the extent to which increase in production and its stabilization are possible from an economic point of view That is important for developing a healthy agricultural economy.

v An accelerated water and soil conservation in the districts of precarious rainfall and thus to encourage sub soil water accumulation

vi Silt clearance in tanks and where possible restoration of the silt to the lands

vii Assistance for well digging and supply of pumps and power

B Agricultural Development

viii In order to better develop and utilise cattle power, mixed farming should be encouraged and developed

ix Immunisation of cattle and live stock against diseases like Rinderpest

x Goshalas organisation and control for reclaiming good cattle and secure their progeny

xi Improvement of cattle and other live stock through grading up and production of stock for distribution to ryots

xii Investigation of the possibilities of the nature and extent of mechanization, as a means of reducing costs of production

xiii Establishment of orchards and vegetable growing through supply of improved seed material

xiv Initiation and development of co operative farming as a means of reducing costs of production

xv Control of pests and diseases of crops

xvi Organisation of research and experiment for the continuous acquisition of factual knowledge in the laboratory and in the field

xvii Cutting down intermediary expenses to the minimum and improvement in the storage and marketing

xviii Railways should render greater service to agriculture by way of providing suitable roadside warehouses for agricultural produce awaiting transport provision

and also the assessing or measuring the improvement actually gained. Groups of villages with adequate rainfall and or possessing irrigation facilities are those where immediate increase in production can be reasonably expected.

The average cultivator does not lack eagerness to increase the yield of his land or to better his lot. What stands in the way is partly ignorance which should be dispelled by effective guidance and practical assistance by the departmental staff.

Water and manure are the two requirements for increasing production. The one without the other is not fully effective. It is possible to produce crop without soil but it has not been possible thus far to grow a crop without water. Next to water and manure is seed. With the majority of soils the deciding factor is not seed but water and manure and without these the value of good seed is lost. A distinction may be made in the plans and programmes under two broad categories :—

A. Applying existing knowledge for increasing production,

B. Gaining knowledge for stabilising production and developing agriculture.

The several lines of work under the two divisions are indicated below :—

A. Food Production

i. Investigation of waste lands for their potential values and remedying of deficiencies in the land already under cultivation.

ii. Introduction of schemes of seed multiplication and manure supply for ameliorating basic soil deficiencies, through conservation of local manurial resources, and by imports from outside.

iii. Utilisation of wild growths of green manures and collection of green manure seed for use elsewhere in and outside Rajasthan.

iv. Improvement of drainage and separation of irrigation and drainage system to control flooding by heavy rains.

v. An accelerated water and soil conservation in the districts of precarious rainfall and thus to encourage sub-soil water accumulation.

vi. Silt clearance in tanks and where possible restoration of the silt to the lands.

vii Assistance for well digging and supply of pumps and power.

B Agricultural Development

viii In order to better develop and utilise cattle power, mixed farming should be encouraged and developed.

ix. Immunisation of cattle and live stock against diseases like Rinderpest

x Goshalas organisation and control for reclaiming good cattle and secure their progeny

xi. Improvement of cattle and other live stock through grading up and production of stock for distribution to ryots.

xii Investigation of the possibilities of the nature and extent of mechanization, as a means of reducing costs of production.

xiii. Establishment of orchards and vegetable growing through supply of improved seed material.

xiv. Initiation and development of co-operative farming as a means of reducing costs of production

xv. Control of pests and diseases of crops.

xvi Organisation of research and experiment for the continuous acquisition of factual knowledge in the laboratory and in the field.

xvii. Cutting down intermediary expenses to the minimum and improvement in the storage and marketting -

xviii. Railways should render greater service to agriculture by way of providing suitable roadside warehouses for agricultural produce awaiting transport, provision

and also the assessing or measuring the improvement actually gained. Groups of villages with adequate rainfall and or possessing irrigation facilities are those where immediate increase in production can be reasonably expected.

The average cultivator does not lack eagerness to increase the yield of his land or to better his lot. What stands in the way is partly ignorance which should be dispelled by effective guidance and practical assistance by the departmental staff.

Water and manure are the two requirements for increasing production. The one without the other is not fully effective. *It is possible to produce crop without soil but it has not been* possible thus far to grow a crop without water. Next to water and manure is seed. With the majority of soils the deciding factor is not seed but water and manure and without these the value of good seed is lost. A distinction may be made in the plans and programmes under two broad categories :—

A. Applying existing knowledge for increasing production,

B. Gaining knowledge for stabilising production and developing agriculture.

The several lines of work under the two divisions are indicated below :—

A. Food Production

i. Investigation of waste lands for their potential values and remedying of deficiencies in the land already under cultivation.

ii. Introduction of schemes of seed multiplication and manure supply for ameliorating basic soil deficiencies, through conservation of local manurial resources, and by imports from outside.

iii. Utilisation of wild growths of green manures and collection of green manure seed for use elsewhere in and outside Rajasthan.

iv. Improvement of drainage and separation of irrigation and drainage system to control flooding by heavy rains.

v An accelerated water and soil conservation in the districts of precarious rainfall and thus to encourage sub-soil water accumulation.

vi Silt clearance in tanks and where possible restoration of the silt to the lands

vii Assistance for well digging and supply of pumps and power

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of refrigerating vehicles for the transport of milk, fruit, vegetables, meat and other articles which should not lose freshness or should not perish; revision of internal freight system in a manner to make it elastic and responsive to the needs of internal distribution of agricultural products,

xix. The farming community as a whole should be awakened to ideas of better farming, better business and better living. To do this more agricultural graduates are urgently required. Fieldmen and Kamdars should be trained before they are employed and provision should be made to train them.

xx. Development of industries subsidiary and ancillary to agriculture and horticulture and the technical utilisation of surplus products waste products eliminate avoidable waste and bring subsidiary income to the farmer. These should be carefully investigated and introduced.

Agriculture—The Real Wealth

Agriculture is the real wealth of Rajasthan. The products of agriculture (which include live stock, fruit and vegetables) are the necessaries for the whole of the population. It is in the creation of these that other industries are set in motion.

Over 80% of the cultivated area in Rajasthan, the cultivator grows crops under *barani* conditions. With practically no expense he may get more crop. But is it equally profitable for the cultivator in giving him a margin equivalent to his original five maunds? It is here that science can and should help in helping the cultivator in the change over from barani to irrigation agriculture and in stabilising and cheapening production.

The work begins with applying knowledge for food production on the one hand and on the other gaining knowledge through experience and factual data obtained during the course of the work and through education, research and extension. Even before a beginning is made, preliminary ground work is

necessary by way of preparing the human beings involved in the process People with the requisite technical knowledge and with a mind and attitude to co-operate and work have to be found and trained in the smallest details for the necessary service in the village In order to fulfil this task, the Agricultural and allied services are being suitably organised

The following is an example of the type of information that would be collected in the villages and collated and indexed at the Head Office —

a Land under cultivation

b Land cultivated and abandoned – reasons

c Land for reclamation

i Suitable for crops

ii Suitable for pastures

iii Suitable for orchards and for fuel tree planting

d Gardens in and round about the village

e Crops grown during planting season, rotation – yield per acre and per bigha

f Source of irrigation –

i Tanks – capacity – conditions

ii Wells – number – depth – volume of water in summer, rain and winter quality of water

iii Number of pucca wells and kutcha wells

iv Number of wells needing repairs

g Number of live stock –

i Cows – in milk dry, calves

ii Buffaloes " " "

iii Camels

iv Sheep

Goat

h. Nature of soils.

i. Transport – Facilities – Roads, – rail, pucca katcha Bus-service.

j. Cattle diseases'

Grow More Food Campaign

The Grow More Food Campaign had its beginning in the year 1941-42—the main lines of the campaign are:—

1. Increasing arable acreage.
2. Improving irrigation facilities'.
3. Improving soil fertility.
4. Controlled supply of manures, implements, iron and steel.
5. Supply of seed and credit.

The following 'Grow More Food' schemes for Rajasthan* were decided on 28th July 1949, at a conference of Joint Secretary, Ministry of Agriculture, Government of India, and Secretary, Food and Agriculture. Rajasthan, Chief Engineer Irrigation, Rajasthan and Director of Agriculture, Rajasthan.

Irrigation Works

An approximate estimate of the irrigation works which could be carried out during the year 1949-50 consists of extension and improvement of existing works, i e , canals and bunds which would cost Rs. 8,00,000 and the area thus benefited would be 3,000 acres, with an increased food potential of 1,000 tons; repairing of breached bunds, costing 10 lakhs of rupees,

* Gang Canal area of Sri Ganganagar in the Bikaner Division where about five lakhs of acres are actually under irrigation cultivation affords a good field for the application of Grow More Food measures The acreage under wheat in this region is 33,000 and out of this about 5% is under wheat C 591. It is decided to bring at least 1 3rd of this area under the improved variety of wheat and to supplement the manure requirements with 100 tons of Ammonium Sulphate and 60 tons of Bonemeal which will cover an area of 5,000 acres

thus benefiting 80,000 acres with an increased *food potential* of 28,000 tons; acceleration and completion of new works in progress, costing Rs. 12 lakhs, which would benefit 8,00,000 acres with an increased *food* potential of 20,000 tons; erection of new bunds costing 52 lakhs of rupees, thus benefiting 1·78 lakhs of acres with a food potential of 25,000 tons.

Construction and Repairs of Wells

The success of well programme depends on the working staff available. The department would train up about 200 men so as to be ready for the current season A training school at Kotah had already been started where men are being trained to take charge of production work in groups of villages, each group consisting roughly of 10 villages. The men selected are mainly from the villages themselves and the training is a severely practical one. The number of men available will thus be sufficient to tackle 2,000 villages

The *present year's* programme will be divided into construction of 4,000 new wells and repair of 3,000 old wells. It is understood that this is an *extremely moderate* target and *there* is every chance of this being considerably exceeded in practice.

The success of the well digging programme will depend largely on an adequate and prompt supply of the materials required The three main materials required are slack coal for burning bricks, cement and iron and steel. As regards the first two items it is the opinion *of* the officers concerned that the indents already made may stand. As regards iron and steel it is estimated that one well will require ½ ton. Incidentally the question of proper distribution was discussed It was agreed that as far as possible the distribution would be in the shape of implements rather than crude material. Proper arrangements will be made for fashioning them into implements.

Construction of Ganwai Nadis

These are a kind of contour bunds provided for agricultural

purposes where flow of water from field is checked by such bunds and the water collected on the field is allowed to be absorbed in the field itself. It is proposed to construct 1,000 of such bunds in a year. The cost is expected to be about Rs. 2,000 per bund. The contribution of the Government will be half of the cost and the balance being formed by the villagers in the form of labour.

Supply of Fertilizers and Manure

Sulphate of Amonia.—It is agreed that Sulphate of Amonia will be used in the irrigated areas. The total extent of irrigated areas is in the region of a million acres The distribution of the stuff will be made after more information (detailed) is available of the specific areas of concentrated irrigation For the current year the estimate of consumption is 5,000 tons. The distribution will be effected through the Agricultural Department as a State Trading Scheme

Bone Meal —It is proposed to use 5,000 tons of bonemeal. It is expected that this quantity will be available from within the State itself.

Super Phosphate.—Thousand tons of Super Phosphate are required. This quantity will be found from out of an All-India Pool

Oil Cakes.—Four thousand tons of oil cakes are produced in the State and this will be utilised in the State itself.

The programme of supply of improved seed wheat, Ammonium Sulphate and Bonemeal and Iron and Steel is as under for the different Units of Rajasthan The estimated increase in production as reported by the officers of the Units

based on their experience is also shown Unit wise —

Requirements and Anticipated Production

Units	Ammonium Sulphate	Bonemeal and Super Phosphate	Improved Wheat Seeds	Estimated Production
1	2	3	4	5
Jaipur	50 tons	17 tons	715 ton	22 800 Mds
Bikaner	400	60	400	40 000
Udaipur	1000	500	1025	43 000
Jodhpur	—		715	10 000
Matsya	50	17	100	4 000
Total	1500 tons	594 tons	2 955 tons	1 20 000 Mds or 4 450 tons

From the figures worked out for a number of years elsewhere in India it has been found that the Ammonium Sulphate and Bonemeal increase the yield by at least double the quantity applied for provided the required quantity is given and the soils of medium fertility and the water requirements are assured Accordingly the sum total of fertilizers to be supplied should guarantee an extra yield of (2094 x 2) 188 tons

Reclamation of Waste Lands

The subject of reclamation of waste lands has to be considered in respect of —

1 Small Agriculturist and settling the landless labourers
2 Landlords like Jagirdas for extensive cultivation
3 Co operative Societies for joint cultivation
4 In relation to Agricultural industries like oil milling sugar manufacturing and cotton ginning spinning and weaving

Reclamation of waste land as a means of increasing production is profitable where rainfall is adequate and properly

distributed as for instance in the Tarai areas of the United Provinces and in certain tracts of Central Provinces and Berar. Where rainfall is precarious and erratic as in many parts of Rajasthan, the result of bringing new land under cultivation will be as unreliable as in the case of the land that is already under barani cultivation.

The following statement showing the deviation of rainfall from the normal, will explain what has just now been said:—

Variation in rainfall in 10 years between 1931-1940

Place	Normal Rainfall in Inches	VARIABILITY		
		Plus	Minus	Total
Assam	100	17	10	27·3
Bengal	74	11·3	18·6	29·9
Chota Nagpur ...	53	24	11·8	35·9
C. P. East ..	54	28·4	7·8	36·2
U. P. East ...	40	46	29·5	75·8
Rajputana East	26	49·6	33·5	83·1
Rajputana West ..	13	25·0	50·0	75·0
Sind	6	50·8	55·5	106·3

It will be seen from the statement that in Rajputana East 4 out of the 10 were years of deficient rainfall, while in Rajputana West 5 out of the 10 years were years of deficient rainfall. It will also be seen that this uncertainty increase as the amount of normal rainfall decreases. It is, therefore, necessary that cultivation of uncultivated land should be done with caution and circumspection. The fact that certain lands which were once cultivated are now abandoned is a pointer in this regard.

The first thing to be done is for the Revenue Department to make an accurate estimate of such lands village-wise, tehsil-wise and district-wise giving:—(i) area of land, (ii) facilities existing or possible for water supply.

After this information is obtained, small parcels of land close to the village and easily amenable to cultivation may be allotted to such of those cultivators as are willing to start cultivation immediately. That is as part of food production drive

The next step is a physiographic and ecological survey of the land on the basis of climatic factors, soil development, water cycle, and stability and density of plant communities This work has to be done by Botanists and Agricultural Chemists It will enable the preliminary classification of the waste lands in regard to their suitability for agriculture horticulture pastures and grazing grounds and for fuel tree planting

The next step is the disposal of the land Two ways may be considered —

1 As a business proposition The land will be cleared, made fit for cultivation, water supply provided and sold to public, and recover the cost and interest and profit

2 Allotment of land to private parties and co operative societies Policy has to be determined in regard to acreages to be given to individuals and co operative societies and the nature and extent of loans to be given

Dry Farming – Mechanical Cultivation

Dry farming is the mainstay of the majority of Rajasthan agriculturists It has been the traditional agricultural practice evolved through centuries of experience It is even in a more advanced stage than elsewhere as is evidenced by 'Gaonnar' nadies which are really contour bunds to check erosion and conserve water

The majority of the soils of Rajasthan are sands and sandy loams In these soils, when rain falls, both absorption and movement of water takes place Depending upon the gradient the speeds of absorption and surplus flow are adjusted to the intensity of rainfall, without local concentrations of water on the surface of the soil and the need for overflow wiers The ad hoc application of the dry farming methods in vogue in the black soil areas of Bombay and Madras Provinces is not

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likely to be useful The soils of Bombay are relatively much more clayey and because of this the rate of absorption is slower than the flow even along a gentle slope

Tractor ploughing and sub soiling tend to so dry up moisture in the sub soil layer that germination and/or seeding development may fail Even improved high yielding varieties of seed is risky as robust early growth may so use up moisture in the soil that the moisture is not enough in the soil to meet the demand at the time of grain formation In sandy areas, the drying up may also set in wind erosion What is required is a careful study of individual regions and practices and introduce modifications in the light of that knowledge

Where conditions are favourable, mechanisation saves individual labour, provides capacity for large scale farming and reduces costs of production Unless tractors tractor implements and servicing are readily available, mechanisation will not do what is expected of it.

Agricultural Implements and Machinary

According to available information there are 73 tractors in the different parts of Rajasthan A few are lowned by the government departments and most are owned by the private owners

There is a growing feeling and desire on the part of government to institute river pumping projects for irrigation and on the part of ryots to improve their farming by the use of pumping sets on the wells It is not every well that can have pumping sets The useful emplovment of pumping set depends on (I) suction height and (II) recuperative power of water

Co operative Farming – Decreasing Cost of Production

The problem of small holdings and the question of costs of production go to the very root of our agricultural economy Cost price relationship is present in all the transactions of the agriculturist and is concerned with the problem of cost of production It is best tackled, for the present at any rate, by

encouraging and developing co operative action in its widest sense To be successful it should be developed within the farming communities of small holders Co operative organisations with members of unequal social status, is not likely to be successful or lasting, and tends to degenerate into an organised popular substitute for middlemen Co operative farming is the golden mean between large scale farming and small scale farming and between capitalism and socialism Co operative farming includes all the good features of both types of farming without their disadvantages, preserves individual ability and initiative, develops self reliance without encouraging selfishness and indifference to the welfare of the community

The primary purpose of agricultural co operation is buying the raw material of suitable quality cheaply *for producing crops* and other farm products Then comes selling to the best advantage of the agriculturist In the chain of operations of productions commencing with the buying of raw materials and proceeding to the stage of marketing there is constant need for technical advice and assistance The co operative functions of organisation for production and the functions of organisations for consumption are sufficiently varied and admit differentiation of those which are technically connected with production on the one hand and consumption on the other as to justify treatment of agricultural co operation in a manner different from the organisation for loans are sales and for consumer s stores

Improved Seed Supply

Improved seed of quality is very much in short supply This can be got over by rapidly multiplying improved varieties of seed on government farms and systematising the storage and distribution of seed

Plant breeding and seed multiplication must proceed vigorously At present attention is confined mostly to wheat The food crops of the masses namely Jowar, Bajra and maize should also receive greater attention

In crops that readily cross fertilize such as cumbu and maize, the hybrid vigour should be exploited for quick results

As a matter of fact, however, cross pollination is of general occurrence in hermaphrodite flowers, and most of them show obvious adaptations for securing it

This being so, we must believe that there is some considerable advantage according to the species from cross pollination The probable explanation has been supplied by numerous experiments in pollination made on plants It has been found that when cross pollination occurs, the resulting seeds are more numerous, or are heavier, and given rise to stronger offspring than is the case when self pollination occurs This is more especially the case when the pollen is transferred not simply from one flower to another on the same plant but from one plant to another In self pollination there is simply the mixing of practically similar characters, while in cross pollination there is a mixing of more or less dissimilar characters In the latter case useful variations are more likely to arise, and be transmitted, giving the offspring a better chance in the struggle for existence

The introduction of new and high yielding variations of crops feed more liberally on the soil than the older and low yielding ones and so impoverish the soil A stage has been reached or may be reached when the limiting factor is not seed but soil fertility

Badi System

The supply of seed to the cultivators on badi system needs examination and consideration to ascertain whether the practice is sound It is held by experts that seed deteriorates in cultivators fields and that therefore pure seed supply should be renewed periodically The reason attributed to this deterioration is that the cultivator does not rogue the crop during growth and does not take sufficient care at the time of threshing Unless the badi system provides against these two defects it is no use adopting and continuing this practice

Amount of work done in the different Units since April 1949

Serial No	Name of seed or plants distributed	Amount of work done in each unit: Jaipur Mds	Udaipur Mds.	Bikaner Mds	Jodhpur Mds	Matsya Mds	Total Mds	Remarks
1	Cotton seed distributed	145	640				785	
2	Improved Bajra seed distributed	112					112	
3	Ground nut A H 25	125					125	
4	Sweet Potato vines	90					90	
5	Potato seed	323				40	363	
6	Vegetable seeds	229 lbs					229 lbs	
7	Vegetable seedlings	3 100					3,100 Seedings	
8	Fruit plants	20 516					20,516 Plants	
9	Chaff Cutters sold	2					2	
10	Cane Crushers sold	2					2	
11	New wells constructed		102				102	by giving Taqavi to the cultivators
12	Old wells repaired or deepened		89				89	
	Work done in Sept Oct—							
13	Ammonium Sulphate distributed	8 tons	59 tons	31 tons			98 tons	
14	Wheat seed C 591	12 745 mds	269 mds				13014 mds	
15	Pakistan or Madhya Bharat wheat		1200 tons		700 tons	100 tons	2000 tons	
16	Bulls distributed from the Cattle Breeding Farms	20 bulls from Basi					20 bulls	
17	*Pest Control*—							
	Area		5 000 acres					
	Insecticides used		26 tons					
18	Agricultural Schools started	1	1				2	Two schools for training the cultivators and the staff of the Agricultural Department in practical farming have been started at Kotah and

Horticulture

In the development of large tracts by reclamation and irrigation projects ordinary agricultural crops may not be such a financial success as with fruit and vegetables Horticulture, therefore, plays an important part in the Agricultural development of Rajasthan and increasing demands will be made on horticultural science

Unlike in agricultural crops, the good or bad results of tree planting will be known only after about 5 to 10 years by which time a considerable amount of money will have been invested It is, therefore, of the utmost importance that only such seed and nursery stock of known origin and proved quality should be distributed to the public

The available knowledge is mostly on fruits of temperate regions, such as, apple, pear, peach, quince, plum, apricot, cherry and others Conditions in Rajasthan are not favourable for the growth of these fruits But Rajasthan offers excellent conditions for mango citrus, papaya, banana, custard apple, phalsa, goose berry, lichi, grape, chiku, pine apple, big guava, pomegranate, straw berry, khirni, jamboo, long plum melons, cucumbers and others Very little study has been made of these fruits except perhaps citrus

Rajasthan which is a unit of 19 integrated states which were originally independent, has the unique feature of possessing a wealth of horticultural material (fruits) because of the fact that the Rulers were interested in gardens and fruits The existing fruit wealth can be sorted out and exploited for the benefit of the public

Some of the departments have established nurseries derived from the seed material from outside, and have been distributing them However, the scientific basis and the parentage of the stock under distribution would be examined and the future policy determined The immediate plan of work would be as follows —

(a) A survey of the wealth of material in the existing

gardens with a view to classify and select good quality of seed and nursery stock, root stock and their standardisation

(b) Improvement in the methods of cultivation of the existing gardens and control of diseases and pests of fruit trees

(c) Improvements in methods of picking, packing and transport of fresh fruit.

(d) Industrial utilisation of surplus fruit

Cattle and Live Stock

Cattle are multi purpose animals and occupy prominent place in the present rural and agricultural economy of any part of India, both from the mechanical and economic considerations They utilise the straw on the farms, do farm work and yield milk and manure

In Rajasthan, cattle occupy a place of additional importance as good quality cattle are reared and a considerable amount of income accrues both to the State and to the agriculturist The cattle position in practice may be described as a vicious circle Cattle are inefficient because the food supply is deficient Because cattle are inefficient the cultural operations are inefficient and, therefore, production from a unit of land is lower than what it ought to be To make up the individual inefficiency more number of cattle are kept with the result that the food supply becomes even more insufficient

In the breaking of this vicious circle lies the problem The solution lies in well planned mixed farming by which land and cattle support each other

A brief survey of the present position of the cattle industry in Rajasthan and the purpose and methods of cattle breeding and rearing is necessary to properly assess the live stock problems of Rajasthan and to determine the lines of work and to reorientate the organisation accordingly

The buffalo holds an important place in the farms generally

as a source of milk and milk products. Cows are not generally kept by cultivators

The *best milkers* are taken from the rural areas to cities and towns, where most of the calves are soon lost. Most of the milch cattle die a premature death; because when the animals become dry, the *gowala* does not want to maintain them and it is impossible to return them to the original home of the cattle. This practice stands in the way of breed improvement for milk as good milch cattle sold out do not return.

Rebaris and Charans

In Rajasthan a class of nomadic people—Rebaris and Charans hold large numbers of cows This class of people wander about the country with their cattle hoards and salvage, to some extent, the dry milch cattle. Their main purpose is to rear bull calves. The cultivators who generally do not keep cows but buffaloes buy bull calves from the nomadic breeders and rear them into bullocks on the fodder produced on the farms.

The Rebari and the Charan nomadic communities are the relics of ancient agricultural systems and rural conditions when large and extensive areas of pastures were available and rendered an important service to the agriculturist in Rajasthan and surrounding areas. These nomadic breeders were then most welcome to the agriculturist as they served the cultivator without any depradation on him They are not now liked because with the expansion of the cultivation and decrease or disappearance of pastures, the Rebaris encroach on the village commons and even growing crops.

With the reclamation of waste lands to agriculture, the Rebari will soon have to face the problem of starving his cattle, maintaining them by other means fair or foul

In any scheme of cattle improvement in Rajasthan the past service and the future of the Rebaris and their cattle cannot be ignored Having regard to the fact that they supply bullocks to the surrounding area it is neither advisable nor practicable to eliminate them As nomadic cattle breeders and

rearers they are a hinderance to the development of controlled cattle breeding on departmental lines and they are likely to seriously interfere, if not frustrate, the purity and quality of the breed brought into being by the department

The best course is to utilise them by —

(i) Settling them on land

(ii) Prescribing the number of cattle to be maintained by them with the condition that part of the land should be used for growing fodder crops and the rest for grazing cattle

Gowshalas

Gowshalas and Pinjrapoles are ancient institutions for sheltering old and infirm animals

Their founding and maintenance depended on —

(i) Collection of laga from those who sold cattle and agricultural products with merchants as the trustees

(ii) Endowments

Economic conditions rapidly changed during the last few decades the humanitarian conscience of the masses continued Charities began to be diverted to other purposes such as education hospitals and national causes In between these the management and maintenance deteriorated on the one hand and on the other hand some institutions began to develop into dairies and cattle breeding centres The Gowshalas and the plans programmes and the financial position of Gowshalas-cum dairy cum breeding centres have to be examined and any modifications or changes considered necessary have to be effected

The function of the Gowshalas should be —

a Care and maintenance of animals

b Improvement in the quality of such animals as are found suitable and promising by the introduction of a system of registration of animals for breeding good stock

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The Rebari and the Charan nomadic communities are the relics of ancient agricultural systems and rural conditions when large and extensive areas of pastures were available and rendered an important service to the agriculturist in Rajasthan and surrounding areas These nomadic breeders were then most welcome to the agriculturist as they served the cultivator without any depradation on him They are not now liked because with the expansion of the cultivation and decrease or disappearance of pastures, the Rebaris encroach on the village commons and even growing crops

With the reclamation of waste lands to agriculture, the Rebari will soon have to face the problem of starving his cattle, maintaining them by other means fair or foul

In any scheme of cattle improvement in Rajasthan the past service and the future of the Rebaris and their cattle cannot be ignored Having regard to the fact that they supply bullocks to the surrounding area it is neither advisable nor practicable to eliminate them As nomadic cattle breeders and

and large expense Nothing has yet come from research institutions in India and elsewhere, that has influenced farm animal breeding on genetic lines except perhaps the fowl and the rabbit

The definition of the improvement aimed in relation to the whole life of the animal and in relation to real economics and grading up towards the definition by selective mating appears feasible and practicable That will lead to the production of quality bulls which may be distributed to farmers and perhaps also to Rebaris with encouragement to produce stud bulls These and the *progeny may be registered and milk* records of the cow progeny may be maintained

The practice of buying bulls from villages without assured knowledge of their pedigree as also the plans and methods of the departmental cattle breeding farms should be examined in the first instance and plans and programmes drawn with due regard to the conditions that prevail in Rajasthan The whole subject should be viewed, studied and planned as a whole

These observations apply to sheep also

Poultry

Generally the type of poultry kept is indigenous The eggs produced are small and the flesh for the table is poor The local village fowl is hardy and fulfils the demands of the great part of the population The small holder in the countryside can produce this class of poultry at negligible cost and however small the profit is it is all profit whether the farmer consumes it himself or sells it

Breeding is another problem which is interesting but should be approached with care as it bristles with uncertainties In several cases marked improvement in size and productivity of local poultry has been achieved by the introduction of pure bred cockerels and distribution of them

The most popular foreign breeds are the Rhode Island Reds and White Leghorns which have been generally shown to stand

c Milk sale from milkers

d Maintain the rest of the animals in comfort

To attain these ends, the first step is the co operation of the work of the gowshalas, special legislation or ordinance may be necessary

Cattle Breeding

Having discussed the position of cattle in Rajasthan in respect of the traditional methods and practices (re breeding, weeding, feeding, rearing), consideration may now be paid to the scope and limitations of the technical and departmental aspect of cattle breeding

While a proper scheme of cattle breeding may be of sufficient interst and importance to be taken up by itself in each district, it must be considered in the perspective of mixed farming, at what may be called field level

Both from the scientific and practical points of view, note has to be taken of the significant difference between plant breeding and breeding for the improvement of the domesticated cattle

Cultivators do not breed plants They only select seed Plant breeding is done by experts in specialised institutions When a new variety is bred and its worth is established, it is given to the cultivators They plant the new variety and the old variety is quickly ousted from the field This is possible because of two reasons Firstly, the distinctive characteristic is clearly definable and secondly, plant progeny are exceedingly numerous and generation after generation quickly follow in large numbers

The case is different with farm animals, They are bred by cultivators themselves If improvement through breeding is to be attained, it is to the farmers themselves that we must look for methods of breeding

Breeding with the aid of the science of genetics is far from being simple and feasible. That needs specialist, a long time

(b) By the children of the peasant of today, who represent the agriculture of tomorrow

(c) By the land owner class whose influence on agriculture for good or evil is enormous and who require agriculturally qualified men for advice or to manage their farms

(d) By under graduates who after training in the science and practice of agriculture will man the agricultural and allied services

Those of category (a) cannot be expected to attend schools or attend classes Instruction has to be carried to them in their homes and fields This will have to be done by the departmental staff

For those under category b) a school with a short course began at Kotah on the 1st of June 1949, which is now training field workers for the department, one for training stockmen and compounders is also necessary

For meeting the requirements of all the four classes, higher graduate and post graduate education is required in a college Instead of sending students for training outside Rajasthan, giving them scholarships and capitation fees it will be more advantageous to have men trained in an institution in Rajasthan

There is already a college at Jobner The University of Rajputana has given permission for the institution of B Sc (Agric) studies this year If in the departmental organisation of teaching and research are combined and located at Jobner, the financial assistance required for the college will be very small The men of the different research sections can also teach Such an arrangement secures the largest result with the minimum of expenditure

up well to the climate and to retain fertility and productivity for at least two generations

The local poultry population deserves more careful study with the object of isolating better types

Fish

Rajasthan is concerned primarily with the inland fish Inland fish may be (i) Estuarine (ii) Riverine (iii) Torrential (Hill streams) (iv) Lacustrine

Item (iv) is of considerable importance for Rajasthan The large number of tanks which are perennial offer prospects for fisheries development

Indiscriminate and uncontrolled fishing can do much havoc to the fishery Catching immature and undeveloped fish does not allow them to grow to full size or spawn even once in their life time Measures of conservation among others, are regulation of size of meshes in the nets regulation of size of the catch

The first step is to make a survey of the position and possibilities before plans are made for development and for an organisation for development

Education - Agricultural & Veterinary

If the agriculturist is to effectively participate in the scheme of agricultural development he needs education He is apt to regard his style of farming and living as inevitable and as something that he ought not attempt to alter He should be educated, among others, to develop a more flexible habit of mind and an awakening to ideas of better farming better business and better living

The pace of progress in food production and agricultural development will depend on the number and quality of men who have received agricultural education

Education is required by four classes of people —

(i) By the peasant who represents the active agriculture today

(b) By the children of the peasant of today, who represent the agriculture of tomorrow

(c) By the land owner class whose influence on agriculture for good or evil is enormous and who require agriculturally qualified men for advice or to manage their farms

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RESETTLEMENT OF EX-SERVICEMEN

By Brigadier Jaswant Singh

Wars are never fought by the peace time standing armies alone. Their beginning is marked by full scale recruitment for providing replacement of wastage of man power and also for expansion of the existing forces. In the past such expansion was limited as the wars were confined to volunteer soldiering. But since the advent of total war and resultant compulsory conscription, the entire population of a nation is converted into the Armed Forces.

In the bygone days on cessation of hostilities, the Armed Forces were used to be reduced to their peace time strength determined by financial capability of a nation or a State. But as the Army at that time was insignificant in number as compared to a modern war time army, the problem of resettlement of the ex servicemen was also proportionately small and did not require any special effort on the part of the government. Moreover the absorption of ex servicemen did not exceed normal vocational adjustment of population. But as the Armies grew up in size, the problem of resettlement also increased proportionately in magnitude and importance so as to engross all attention and total national effort. Now no government can afford to accept a callous attitude in this respect as apart from its responsibility towards the youth of the country who hazarded their personal safety and comfort both in the service of the nation and upholding a cause, it is also impregnant with immense dangers and revolutionary possibilities on account of a change in mental and moral outlook brought about by their introduction to battle.

Concessions and Facilities

During the last war, the biggest of all wars, the Armed Forces of India, though volunteer in character, increased to

tremendous proportion and at the close of the war its strength increased to 2 5 million Rajasthan in consonance with its martial traditions and place in the fighting forces, made appreciable contribution, as thousands of our young men swelled the number in the Indian Army as well as in the States Forces As it was natural, on termination of the war, the reduction of the Armed Forces followed

At that time, all the States of Rajasthan paid due attention to this problem of resettlement of the ex soldiers in the civil life as State servants, and also in agriculture as well as industry Some of these States opened a separate department which gave effect to the government's policy in this respect and also performed the functions of employment exchange Various concessions were granted which immensely contributed towards solution of the problem of resettlement

Among all the States, Jaipur State is foremost in granting concessions and facilities to the ex-soldiers, some of which are given below

Allotment of Lands

Ex servicemen are allowed lands at the following scales —

Officers	120 Bighas
VCos	80 „
IORs	60 „

Ex-servicemen have got the option to avail of either of the following concessions with regard to the lands allotted to them —

1 Rent free for first 10 years
2 After the first ten years rent at half the [illegible]
will [illegible]
the [illegible]
his [illegible]

or

1 The lands allotted will be rent free for first 10 years
2 Full pattedari rights will be given to the allottees without payment of any fee

3 A grant of Rs 10/ per bigha will be made by the government to each allottee to enable him to prepare the land for cultivation This payment will be an absolute grant and will not be refunded

Besides the above concessions, the ex servicemen allottees will be given the usual concessions in respect of rent on their converting the land into Chabi

(i) In case the wells are sunk at Government expense	Chabi rates will not be introduced until after the third year from the date the wells are brought into use
(ii) In case the wells are sunk by tenants	Chabi rates will be introduced after 15 years or the next revision of settlement which ever is earlier

Allotment of Nahri Lands

Nahri lands are being allotted to ex servicemen at the Mansarowar Colony—at the following scales

Officers	...	40 Bighas
VCos	..	27 ,,
IORs	.	20 ,,

The allottees are allowed the following concessions at this *Colony* —

(1) Grant of subsidy for building houses @ ⅓ of the cost of the house

(2) Financial assistance for purchasing cattle and agri cultural equipment @ ⅓ of the cost

(3) Construction of public buildings at the Colony for the collective benefit of ex servicemen colonists

So far only one displaced V C O has applied for allotment of land at this colony Allotment of 27 Bighas of land has been made in his favour

Employment Assistance

Ex servicemen, wishing resettlement by way of employment are assisted in securing employment

Fifty percent of the vacancies in all government departments were reserved for ex servicemen and they were exempted from selection through the Public Service Commission whenever appointments were made through that body. Displaced ex servicemen like the ex servicemen belonging to Jaipur State are also eligible for these concessions

Ex servicemen are registered at the Employment Exchange section of the Soldiers Resettlement Department for employment assistance

Training Facilities

For facilitating the employment of ex servemen in industrial concerns arrangements are made for their training in technical and vocational subjects Training in technical *subjects is imparted* at the Government of India Technical Training Centre Water Works Jaipur and in the vocational subjects at the Cottage Industries Institute at Jaipur

Post War Reconstruction Fund

This fund was constituted from April 1, 1942 The object of the fund is to provide money to assist in the resettlment of Indian soldiers in civil life after the war It consists of monthly contributions by the Government of India at the rate of Rs 2/ for each combatant and Re 1/ for each non combatant such contributions being entirely separate from the deferred pay at the same rates which will be paid to the men themselves in due cou[illegible]

Th[illegible] f[illegible]d is in excess of any central and provincial fund allott[illegible]d f[illegible] general reconstruction Though contributed, as described on a capita basis it is allotted to the areas roughly on the basis of recruitment in areas

[illegible] fund is under the coutrol and direction of the Government [illegible]f India which keeps 20% of the fund as central reserve

and distributes the remaining part to the provinces as stated above. The decision as to how and where the money will be spent, is made by the Government of India and the general policy is to assist and support, but not to initiate, provincial or central projects which have a due bearing on the welfare of ex-soldiers. Scholarships are allowed at liberal scales to exservicemen for their own education under the Education Scheme Fifty percent of the cost of this education is contributed by the Central Government and fifty percent met by the local administration.

In the above survey of concessions and facilities granted to ex-servicemen, it will be noted that the government of the former Jaipur State under the inspiration of His Highness the present Rajpramukh did considerable work in this field The Rajasthan Government has now been approached to extend these concessions and facilities to the whole of Rajasthan. The government would very shortly make these concessions applicable for the entire Union.

ARCHAEOLOGY

by Shri Satya Prakash

A vast amount of historical and pre historic material lies scattered and unexplored in the extensive region of Rajasthan — one of the most fascinating parts of India Rajputana has played a glorious role in the history of our country since times immemorial There is no wonder if co ordinated and systematic research discloses the links in the chain of settlements that must have sprung up in the trail of the copper and steatite mines of Rajputana and the Indus valley, where their products were in use to a very great extent Archaeologists are of opinion that some pre historic settlements of the same period as Harappa and Mohenjodara lie buried in the sands of Jodhpur, Bikaner and Jaisalmer and it is high time that a co ordinated attempt is made by archaeologists to show with the help of material remnants here what man has been doing through the ages under various conditions As archaeology is the only source in this region as also in others, to illuminate the days before those of documentary history of Tessitore and Colonel Todd vigorous attempt need be made now (after the formation of Greater Rajasthan) to study the people of this vast region their achievements, shortcomings, tastes and feelings and thus to reconstruct that past, on which the present is based and the future will be founded

Rajputana Under Water Before Epic Age

Besides chance discoveries in several States, systematic excavation conducted by Messrs Daya Ram Sahni, K N Puri and Krishna Deva at Bairath, Nalisar, Sambhar, Rairh and Nagar in Jaipur State, by Dr D R Bhandarkar at Nagri in Udaipur and by Sir John Marshall at Mandor in Jodhpur have revealed to us the potentialities of excavation work in Rajasthan Stray evidence afforded by objects like chertflakes

and cores discovered in one of the rough built stone platforms in Bairath Valley and also on the lower terrace of the adjoining hill, closely resemble those found on the calcholithic sites in the Indus Valley and easily set at naught the old theory of Geologists that the land of Rajputana was under water before the age of the Epics The archaeological data revealed to us in the course of excavations at this place in the shape of the above noted finds, when coupled with the type of bricks and parallel walls unearthed from Rauh, amply illustrate the possibility of the region as forming part of the Indus valley region We can, thus, safely assign to some areas of Rajas than the antiquity of Mohenjodaro and Harappa and stretch the chronological limits of the area to several thousands years before Christ

In the historic period Rajasthan has yielded a lage number of important epigraphs, coins, sculptures, etc ranging from the Asokan age to the most recent times

Tradition and History

Tradition ascribes to this region a number of momentous events some of which are still shrouded in mystery owing to non availability of archaeological evidence on the subject from any of the sites in India We know from the Ramayana of Valmiki, for instance, that the south-east corner of Jaipur (at the confluence of Chambal and Banas) at present known as Rameshwar Tirath was visited by Sri Ramchandraji and his party and they had all stayed there for a night on their way to Dandakaranya

Again, the Mahabharata affords us a clue to the existence of the Khandava Vana of Mahabharata times in this region This vana was the same forest which was levelled by Arjuna for being turned into a habitable region for the Pandavas and was, later on, called by the name of Viratapura Tradition identifies the town of Bairath in Jaipur State with Viratpura, the capital of Virata, the King of the Matsya country, at whose court the Pandavas with their spouse Draupadi passed

incognito the thirteenth year of their exile A number of important events of epic history like those of the battle of Arjuna with the Kauravas, the murder of Kichaka, and the marriage of Uttara with Abhimanyu are associated with the region

Ancient Political Divisions

Besides tradition, sober history too ascribes a number of ancient political divisions to this region and it is for us now to locate their identity and seek their adjustment with the present political units of India During the period of the Mahabharata the region lying to the north of Bikaner and Jodhpur was known as Atavik Pradesha and had its capital at Nagor formerly known as Ahichhatrapura

This region was later on known as Sawalak (formerly known as Sapadlaksha) and it included in it the east part of Mewar It had its capital at Sambhar formerly known as Sakambhari The southern part of Jaipur State was then included in this region of Sapadlaksha The northern part of Alwar State formed part of Kuru kingdom in the Mahabharata times So also was the case with the southern and western regions in Matsyadesha The eastern region was included in Surasena desha. The present States of Bharatpur, Dholpur and Karauli also formed part of Surasena kingdom The northern part of Jaipur was then included in Matsya region The present State of Sirohi the south east portion of Jodhpur Danta and Palanpur States were known as Arbud Pradesha and had their capital at Chandravati in the ravines of the Abu mountain

Not only this the arid plains and ever shifting sand dunes of Marwar now including the western parganas of Jodhpur, were at one time called Maru Desha The vast and varied regions of the south and west were sometimes known as Balla Desha

In Rajput days the portion now covered by the area of Melani in Jodhpur was called Travani, while the whole of Jodhpur State was famous by the name of Gurjara Desha.

and cores discovered in one of the rough-built stone platforms in Bairath Valley and also on the lower terrace of the adjoining hill, closely resemble those found on the calcholithic sites in the Indus Valley and easily set at naught the old theory of Geologists that the land of Rajputana was under water before the age of the Epics The archaeological data revealed to us in the course of excavations at this place in the shape of the above noted finds, when coupled with the type of bricks and parallel walls unearthed from Rairh, amply illustrate the possibility of the region as forming part of the Indus valley region We can, thus, safely assign to some areas of Rajasthan the antiquity of Mohenjodaro and Harappa and stretch the chronological limits of the area to several thousands years before Christ

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State and a number of other inscriptions found in Mewar range in point of chronology within the period from the 3rd century B C to the 8th century A D A number of Persian inscriptions discovered at Naraina, Hindaun, Toidi in Jaipur State and one such inscription discovered from Jahangiri Mahal at Pushkar deserve careful consideration which amply illustrate the part played by this region in Muslim times

Light on Gupta History

Again, some interesting and useful light is thrown on the Gupta history by the Bijaya gadh pillar inscription of Vishnu Vardhana son of Yasovardhana, and the Gangadhar (in Jhalawar State) inscription of Visva Varman The inscription of Shiva Gana discovered at Kanasva in the Kotah State throws welcome light on the Mauryan history for it gives us a clue to the rule of the Mauryan dynasty in Rajputana as late as in the 8th century A D. Similar other facts relating to India's history are brought to light by the Shergadha (Kotah) inscription of the Naga samant Devadutta, the Samoli (Udaipur State) inscription of Siladitya, the Nagda (Udaipur) inscription of the time of Aparajita, the Vasantagadha (Sirohi State) inscription of the time of Varmalata and his feudatory Rajjila and the Daulatpur inscription of Bhojaraja, and a sixteenth century inscription from Ramangarh (Karauli State)

An inscription of the 14th century, discovered from a niche of the reservoir in front of the temple of Kavalji (Kapalisvara) lying in the Balwan State of the Kotah principality of Rajasthan is extra ordinarily important for it supplies us valuable information about Hammira of Ranthambhor and his family. It reads as a prasasti and is of the type of the Allahabad pillar inscription of Samudra Gupta but gives us an insight into the history of the Chouhans of Ranthambor as well as of the Parmars of Malwa

Inscribed seals bearing the insignia of 'Malavanavjayah' and Malava Janapada discovered from Rairh also deserve mention for these serve as proofs to substantiate the maxim that

The forests and plains of black loam, furrowed by the running streams of Mewar, were, in the pre-christian era, known as Sivi Pradesha and had their capital at Madhyamika, now indentified with Nagari (in Udaipur State), where a number of important copper coins of the 3rd cent. B. C. have been unearthed. In later periods of history this region was called by the name of Medpat or Mewar. It was also known as Pragvat. The ancient name Bagada Pradesha, ascribe to the regions of Dungarpur and Banswara by the people there are not without significance and must have existed in the past just like that of Dhundhar, a name ascribed to Jaipur by the people The present States or Pratapgarh, Kotah, Jhalawar, Tonk etc, were once a part of Malava Pradesha but were subsequently added to the Rajasthan Pradesha and many events of medieval and Moghul history are connected with this region rather than with those of Malava region. which has some distinguishing cultural characteristics of its own

Epigraphy

The earliest and most important epigraphic record available from this region is the inscribed stone, known as the Bairat Calcutta Edict stone – supposed to have been removed to Calcutta by Major Burt in 1840 from Bijak ki Pahari at Bairath in Jaipur State. This edict recommends the study of select passages from the Buddhist scripture and supplies definite proof of Asoka's faith in the tenets of the Buddhist religion Of the other inscriptional records mention must be made of a 3rd century A D, inscription at Nagri near Chittorgarh (which throws a flood of light on the Greek occupation of the region in some remote period of our country's history) an inscription of 372 A.D., *discovered on a nicely carved stone-pillar at* Bayana in Bharatpur State, two Yupa Pillar inscriptions at Barnala, a tenth century stone slab inscription from Harshanath hill at Sikar, four and half Yupa pillars belonging to the 3rd century A.D. at Badwa and one ordinary pillar belonging to the Gupta period at Chara Chumah in Kotah, several inscriptions at Sambhar, Khandela, Amber and Chatsu in Jaipur

India has since time immemorial been wedded to democracy, which found expansion in small but well managed republic like the Malavas

Numismatics

The activities of the archaelogical departments of various States in Rajputana, though stray and isolated, have yielded a very rich harvest of numismatic discoveries Excavations at Bairat in the Jaipur State included eight silver punchmarked coins in addition to twenty silver coins of the Greek and Indo Kings of N W India Sambhar excavations carried out at Nalhasar have brought to light nearly 200 silver and copper coins including six silver punchmarked coins and an equal number of late Indo Sassanian coins of copper which fixed the earliest and latest occupation levels at this site A coin of Huvishka and another of the Indo Greek King Antimochos Nikephoros fixed dates of earlier levels and several Yaudheya coins found on this site may have come from Rohtak, where a large mint of this dynasty is said to have existed But the most remarkable discovery in this field of numismatics was made at Rairh in the course of systematic excavations con ducted in the years 1938 40 in the shape of five hoards of silver punch marked coins totalling in all 3075 coins This collection is so far the largest found from any single site throughout the length and breadth of India Over 300 coins of the Malava tribe, 14 coins of the Mitra Kings, 6 unique and hitherto unknown series of senapati issues, 7 Vapu coins, a broken coin of Appollodotos and 189 uninscribed coins formed part or the rich harvest A couple of Indo Sassanian coins of best silver and a coin of Mahmud II the Khilji Sultan of Delhi are the only coins discovered on the surface of the mediaeval Hindu and Muslim periods

More than 6000 copper coins were picked uy by Mr Carlleyle from the ancient site of Nagar in Jaipur State of which one hundred are even to this day preserved in the Indian Museum, Calcutta Most of these coins are believed to have been minted at Nagar itself by the chiefs of a local Malava

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tribe Though in course of the trial excavations at the place, a larger number of coins could not be obtained, it is almost [illegible] account of its being in the vicinity of [illegible] in [illegible] cen[illegible] once the capital city of the Malavas in [illegible] The coins found at this place bear legends in Brahmi character of the period ranging from the 2nd century B C to the 4th century A D and include the smallest and lightest coins to be found anywhere in the world

Largest Hoard of Gupta Coins

To the Gupta period belongs a mound on a hill known as Bundhawali Dungri near the village of Moroli in the Sikrai tehsil of the Jaipur State Though a hoard of well preserved gold coins has been found and the coins have all been identified as those of Samudragupta and Chandragupta II, they present no new variety but go a long way in connecting this region with the Gupta History

The largest hoard of Gupta coins was discovered a few years ago in Bharatpur State The hoard is an important one and presents before the numismatic world a number of new varieties—one of the important types of which is the rhinoceros type

Again the great hoard of Kshatrapa coins found at Sarvania in the Banswara State shows how numismatic finds can be utilised for purposes of reconstructing history

Similarly a good number of Indo Scythian and Gupta coins discovered from different parts of Udaipur State help us in building up the history of this region in point of its relation to the Hindu period of Indian history.

Monuments

Scattered all over the region are numerous buildings which deserve protection, systematic care conservation and repairs In spite of their poor condition they shed lustre of their own

India has since time immemorial been wedded to democracy, which found expansion in small but well-managed republic like the Malavas.

Numismatics

The activities of the archaelogical departments of various States in Rajputana, though stray and isolated, have yielded a very rich harvest of numismatic discoveries Excavations at Bairat in the Jaipur State included eight silver punchmarked coins in addition to twenty silver coins of the Greek and Indo Kings of N. W. India. Sambhar excavations carried out at Naliasar have brought to light nearly 200 silver and copper coins including six silver punchmarked coins and an equal number of late Indo Sassanian coins of copper which fixed the earliest and latest occupation levels at this site A coin of Huvishka and another of the Indo Greek King Antimochos Nikephoros fixed dates of earlier levels and several Yaudheya coins found on this site may have come from Rohtak, where a large mint of this dynasty is said to have existed. But the most remarkable discovery in this field of numismatics was made at Rairh in the course of systematic excavations conducted in the years 1938-40 in the shape of five hoards of silver punch marked coins totalling in all 3075 coins This collection is so far the largest found from any single site throughout the length and breadth of India. Over 300 coins of the Malava tribe, 14 coins of the Mitra Kings, 6 unique and hitherto unknown series of senapati issues, 7 Vapu coins, a broken coin of Appollodotos and 189 uninscribed coins formed part or the rich harvest. A couple of Indo Sassanian coins of best silver and a coin of Mahmud II the Khilji Sultan of Delhi are the only coins discovered on the surface of the mediaeval Hindu and Muslim periods.

More than 6000 copper coins were picked uy by Mr. Carlleyle from the ancient site of Nagar in Jaipur State of which one hundred are even to this day preserved in the Indian Museum, Calcutta. Most of these coins are believed to have been minted at Nagar itself by the chiefs of a local Malava

tribe Though in course of the trial excavations at the place, a larger number of coins could not be obtained, it is almost certain that Nagar, on account of its being in the vicinity of Rairh—an important Malava settlement (which specialised in metallurgy and manufacture of iron tools), must have been once the capital city of the Malavas in Eastern Rajputana The coins found at this place bear legends in Brahmi character of the period ranging from the 2nd century B C to the 4th century A D and include the smallest and lightest coins to be found anywhere in the world

Largest Hoard of Gupta Coins

To the Gupta period belongs a mound on a hill known as Bundhawali Dungri near the village of Moroli in the Sikrai tehsil of the Jaipur State Though a hoard of well preserved gold coins has been found and the coins have all been identified as those of Samudragupta and Chandragupta II, they present no new variety but go a long way in connecting this region with the Gupta History

The largest hoard of Gupta coins was discovered a few years ago in Bharatpur State The hoard is an important one and presents before the numismatic world a number of new varieties—one of the important types of which is the rhinoceros type

Again the great hoard of Kshatrapa coins found at Sarvania in the Banswara State shows how numismatic finds can be utilised for purposes of reconstructing history

Similarly a good number of Indo Scythian and Gupta coins discovered from different parts of Udaipur State help us in building up the history of this region in point of its relation to the Hindu period of Indian history

Monuments

Scattered all over the region are numerous buildings which deserve protection systematic care conservation and repairs In spite of their poor condition they shed lustre of their own

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on ancient art and architecture. Some of these are rare specimen of art and architecture and are a study in themselves. These reflect in them architectural *styles* (pertaining to different periods, varying from the Hindu *times down to the* Moghul *times*). The well-preserved *early typical Rajput* buildings (belonging to the period ranging from the 11th to the 14th century) in Rajasthan have in them attractively ornamented facades with jutted balconies surmounted with Hindu cupolas. The meeting *halls in these* buildings and the Jagmohans or the halls for congregation within the temples *are purely* Hindu in style, which is *strictly in accordance* with the practice of the day by way of provision in the shape of beautifully ribbed carved pillars and columns with Amrit Ghat or 'the pot of the nectar' at the bottom and elephant brackets at the top.

The other types of buildings found in *Rajasthan are those* which have *moghul influence* running all through. *They are known mostly for the style which is* called the 'Indo-Sarcenic'. Such buildings were constructed in Rajasthan from the 16th to the 18th centuries A. D. The Kachhawaha *rulers of* Amber and Jaipur are considered to be the harbingers of this school of architecture in Rajasthan. The Indo-Sarcenic style was, *thus, introduced by the Rajput Princes, who were attached to* the moghul *courts and who mostly enjoyed the favours of the* Emperors. These are all *monuments of great importance and* can be classified according to *different creeds and religious beliefs*. These are either Buddhist stupas and monasteries or Jaina and Brahminical temples. Some of them are unlike *these, palaces, forts, cenotaphs and other structures of cultural* importance.

Buddhist Monument

The exploration of an ancient site near *Bairat*, which was selected subsequently for excavation in the valley known as Bijak ki pahari. The remains on the summit of this hill are divided into two distinct terraces. the western one *being about*

30 ft higher than the other The excavations of the upper terrace revealed the remains of a large Buddhist monastery *constructed* on a more elaborate plan than those *familiar to us from* other Buddhist sites The lower terrace, on the other hand, brought to light the *most note*worthy structural remains of a circular temple consisting of panels of large wedge shaped *bricks alternating with* a circumambulatory passage of the same circular shape and the temple had a wide entrance on the east This is one of the oldest *structural temples of the* historical period found in India and one of those which *furnished models for the rock-cut cave temples* of the *type* represented by the Chaitya caves of the 1st century B C in the Tulja Lena group at Junnar Like the latter the newly discovered temple at Bairat enshrined a stupa, which was built of bricks and also *crowned* by an Asokan umbrella of polished chunar sandstone The stupa is believed to have contained a reliquary enclosed in a large stone bowl, fragments of which, together with those of the umbrella, were found along with the bricks inscribed with early Brahmi characters showing that the temple was the work of Asoka himself

Remnants of several rock cut Buddhist Viharas have *come* to light at the village of Kholvi in the Jhalawar State and are subjects of an interesting study for the scholars in this region of Rajasthan

The revelation of two stupas at Nagri *near Chittorgarh* is sufficient to inspire the scholar of Buddhist history to study the scope and expansion of Buddhism in India.

Temples

The extensive area of greater Rajasthan is credited with the sacred influenc of Jainism and a good number of old Jaina shrines are to be met with in this region

Of the old Jaina temples, reference must be made to Jaina temples at Sanganer, Amber, Chatsu and Bairath in Jaipur State to Delwara temple at Abu in Sirohi State, a very old *temple at Sohagpur in* Pratapgadh State, an old temple at

Kalinbar in Banswara and several good temples of the 14th century in Jaisalmer and Sirohi States and to very old ruined temples of the Jainas at Ahar (near Nagri in Udaipur State) and several such type of good old Jaina temples at Rajgadh and Paranagar in Alwar State

All these Jaina shrines preserve the highest ideals of pure Hindu architecture and from them may be deduced interesting evidence bearing upon the national character and creed This architecture varies from temple to temple and presents in it fine decorative symbols and designs, ranging from the 9th century A D to the 17th Century A D

Of the Jaina temples, typical of mediaeval Jaina architecture, mention must be made here of a Jaina temple at Bairath, which contains a long and well preserved Sanskrit inscription recording the construction in the Saka Year 1509 (1587 A D) of this temple under the name of Indravihara the consecration of which was performed by the well known Jaina saint Hari Vijaya Suri, whose teachings induced Akbar to grant prohibition of killing of animals in 106 days of the year, amnesty to prisioners and gifts of books to the saint himself An equally important piece of architecture is the Jaina temple at Kot darwaza, some twenty five miles off from Jaipur city

This temple preserves in it Jaina images ranging from S 1316 to 1680 The Shiva Dungari hill of this place contains another Jaina temple which once contained two pillars having in their niches all the important Tirthankaras beginning with Rishabhadeva or Adinatha to Bhadra bahu These pillars are on display in the Jaipur Museum The temple of Neminath on Dungari near Champavati is also very significant and preserves in it some nice Jaina images of the moghul times

Temple of Brahminical Faith

Hindu temples dedicated mainly to two gods Vishnu and Shiva are found in this region but a few with the images of Goddess Ambika are also to be met with

The earliest temple in this region is the temple (now

unfortunately in ruins) at Chandravati in Jhalrapatana It belongs to the 7th century A D and is a rare specimen of art

The other temples presenting fine workmanship in stone are at Baroli and at Nagda in Mewar and belong to the 10th and the 11th century A D The other old temple of this region is the ruined temple of Harshanath Shiva on the Harshanath hill near Sikar in *Jaipur State*. *In an inscription* of the 10th century A D this monument is *described* as possessing a spacious mandapa fronted by a torana A subsidiary structure on one side of the temple contained colossal statues of the *Pandava brothers and Draupadi and these statues and other* sculptures have been brought down and exhibited in a Museum at Sikar The Siva temple Abaneri in Jaipur also deserves a *special mention* *It stands on a high plinth and is reached by* a flight of steps It has a spacious mandap which is supported by pillars which have sculptured pieces embedded in them *Even the ceiling and the circumambulatory passage is found* covered with fine sculptured pieces The temple belongs to the 8th century A D

Another temple which was never coeval with the one referred to was the temple at Chatsu of Murari (Vishnu) which according to an inscription in the Jaipur Museum was constructed by a Guhila Prince named Baladitya This temple has long since disappeared but the remains of a temple of about the 11th century A D which was dedicated to Siva *have survived beneath a later temple* of *Chaturbhuja* which was constructed in 1603 A D during the reign of Maharaja Mansingh An interesting temple earlier than this in typical *Indo Aryan style and in an almost perfect* state of preservation is at Bisalpur An inscription dated in Vikrama Sambat year 1214 in the reign of the celebrated Chahamana king Prithviraja (III) of *Sambhar Ajmer and Delhi* designates the temple as that of Gokarna Of the other temples of Brahminical faith existing in Jaipur State mention must be made of the temple of Kalyanraiji at *Diggi and Jagat* Siromaniji at Amber and of Shakambhari at Sambhar

The other fine temples scattered in other parts of Greater Rajasthan not reviewed so far are Mira's mandir at Chittorgarh, old temples at Dara in the Mukandaragarh in Kotah State, the Navagrah temple in Kishangarh State, the temples of Brahma and of Sri Rangji at Pushkar, the Kapildevji's temple at Kolayatji in Bikaner, the Sas Bahu's temple at Nagda, Sri Nathji's temple at Nathdwara, the Eklingji's and the Dwarka dhish's at Kankroli, the Siva's temple at Badauli and the 11th century Udayeshwar temple at Udaipur and the Vasistha's temple in the Sirohi State

Mosques, Tombs and Cenotaphs

Rajasthan does not only abound in Hindu temples but also possesses many beautiful mosques and tombs in it. The most noteworthy are the Arhai din ka Jhonpra and the Dargah at Ajmer, a mosque of Akbar s time at Amber and a number of beautiful mosques and tombs in Jodhpur and Alwar. The oldest mosque, supposed to have been built by Alauddin Khilji, is still to be seen at Jalor in Marwara principality The Arhai din ka Jhonpra in the above series is an example to show how the Mohammadan conquerors took the chief Pagan shrines of a city as a trophy of their own faith. From its simplicity as well as its appearance of antiquity, the screen of it is ascribed to the Ghorian dynasty Though the entire facade of the noble entrance is covered with Arabic inscriptions, the arch of the entrance is Sarcenic in style

In short, the mosques and tombs in Rajasthan are typical of mediæval muslim architecture and Persian influence is manifest in detail there

Besides, a good number of cenotaphs of rulers typical only of Rajputana, are found in plenty here in this area Among notable cenotaphs of the region, the cenotaph of eighty four pillars at Bundi, a number of cenotaphs in typical moghul style at Newai, Amber and at Gettore near the city of Jaipur

are worth mentioning The town of Lalsot, fifty miles off from the city of Jaipur, once possessed an ancient Buddhist Stupa of considerable antiquity Six red stone pillars belonging to the railing of this monument have in modern times been utilised in the construction of Chhatries or Cenotaphs These pillars are five feet high, square at the base and at the top and octagonal in the middle portion

The beautiful marble cenotaphs at Gettore in the vicinity of Jaipur city stand on raised platforms and have beautiful human figures in their panels Of these cenotaphs the one belonging to Jai Singh III is most beautiful and a model of it is to be seen in the South Kensington Museum Its domes are crowned by lovely finials Figures of deities and scenes from the life of Krishna depicted in carving above the lintels in the panels are worth a study and present good workmanship in them

Of modern Indo Aryan civil architecture, the best specimen are also the cenotaphs of Sangram Singh and Amar Singh, at Udaipur and of Bakhtawar Singh at Alwar The latter shows the foliated arch which is so common in Moghul buildings and it shows the Bengali curled cornices whose origin was the bending of bamboos used as a support for the thatch or tiles

Forts Palaces and other Structures

There are numerous forts in Rajasthan Indeed, no province in India possesses a greater number of forts and fortresses Most of them are situated on hills and present an imposing appearance both from the point of view of position, and dignity and utility The Chittorgarh and the Kumbhalgadh in Mewar the Amber and the Ranthambhor forts in Jaipur, the Mandor the Nagore the Jodhpur and the Siwana forts in Marwar the Bhalpur fort in Jaisalmer, the Basantgadh in Sirohi the Rajgadh in Alwar the Shergadh and the Gagraun in Kotah, the Tahangadh in Karauli and the Bayana, Dig, Bharatpur and Vijayagadh forts in Bharatpur proclaim even to this day

their glory. Of them, the Ranthambhor fort is the earliest and hence historically very important. The palace of Hammira is here built in the Hindu style of the period from the 12th. to the 13th century A. D. It is built of red Karauli stone and huge masonry work is witnessed even to this day. The palace is remarkable for ceilings constructed of very large suspended slabs, which are in their major part intact but stand in need of repairs. There are, besides these, three very big chhatries and big tanks or talabs.

As to the palaces, the most noteworthy are those at Amber in Jaipur; the Ummed and old Mandir palaces in Jodhpur; the Ganga Niwas in Bikaner; the old palaces in Alwar; the Gopal Bhavan at Dig in Bharatpur and the Jagnivas palace in Udaipur. The fine Indo-aryan palaces at Udaipur, Amber and at Dig are particularly beautiful because the beauty of their architecture is greatly enhanced by the use of picturesque sites either on hills, in valleys or where the aesthetic value of water may be utilised. At Rajsamudra in Udaipur the bund or dam of the artificial lake is covered with steps, which are broken by pavilions and kiosks interspersed with fountains, the whole forming a fairy scene of architectural beauty. Besides these some unknown palaces are the Ruthi Rani-ka-Mahal at Todaraisingh in Jaipur State and the palace at Rai-ka-Bagh in Jodhpur. The former one is an early 16th century structure and has got in it a Zenana Mahal, a reception room, the Rang Mahal, the Diwan Khas-o-Am and a large cistern while the latter has all the comforts of modern life in it.

Of the other notable structures in Rajasthan mention must be made of Baories or step wells and Hadi Raniji-ka-Kund at Todaraisingh in Jaipur, the Kirtistambha at Chittor, the Mukandara-ki-Chanwari on Mukandara in Kotah (now in ruins but belonging to the 7th century A. D.) and a few other monuments of cultural importance in the village Vilas of Kotah State.

Some Notable Sculptures

A number of beautiful images of Shiva and Vishnu unearthed from Sambhar in the course of excavations throws considerable light on the religious tendencies of the people in this region

Again, the figures of Krishna and Gopies in *ras lila* pose in ... temple at Amber and a good ...

Malpura, Chatsu etc, in the Jaipur ... establishing the contact of this part of the region with the early Hindu period of the Christian era

The Siva and Paravati image and the image of Yama in the Ajmer museum, the white marble Sarasvati image in the Bikaner museum the thousand armed image of goddess Ambika from a part of Jodhpur (now preserved in the Rajputana *museum*) the Ardhanarisvara image discovered from Abaneri (*now preserved* in Ram Bagh Palace compound) and the dance troupe images of Sikar *museum are rare* pieces of Art Besides a number of beautiful images are still lying unprotected in unfrequented places like Abaneri, Harshanath Hill (at Sikar) etc All these, when collected and placed in a central museum would enrich the cultural treasure of the country Terracotta figures and figurines together with illustrated pottery pieces collected so far by the Archaeological department of Jaipur also deserve mention These are very beautiful and rare and can compare favourably with the collections in any museum in India The terracottas, to mention a few only which represent in them best art, include figures in the round and reliefs (which include Siva with a damaru, fastened to the crown of the head with a fillet and a snake necklace) hundreds of figures of animals, plaques with the figures of Yakshi Uma Maheshwara and other hollow pendants Of the ... pieces, one group consists of a part of ornamental ... with necks and handles so designed as to represent what appears to me to be the Ramayan legend relating to the de... of the celestial river Ganga from the matted hair ...

Some Ancient Sites

Among the notable antiquities revealed to us by the scientific use of the spade are the Madhyamika at Nagri near Chittorgarh, the old Marwar capital at Mandor in Jodhpur and the Sakambhari at Nalasar, a few miles off from the well known salt lake of Sambhar, the Malava nagar at Nagar in the Uniara Thikana of the Jaipur principality and the unnamed but an important metallurgical and industrial centre of India over 2,200 years old at Rairh in Thikana Bhartala to the south east of Jaipur State Though the excavations have already been conducted at Bijak ki Pahari in the town of Bairath (identified by tradition with Viratapura of the Epics), no truths of epic history could so far be substantiated It is expected that the range of the hills extending towards Alwar or the hilly mounds lying in the vicinity of Bhimji ki-Dungari might yield some epic material if further excavated

The excavations at Bairath revealed thousands of polished and unpolished pieces of Chunar sandstone which had remained there to prove the former existence on this site of two Asok Pillars The wholesale destruction, to which this site was subjected was probably the work of the Hunas in the 5th or the 6th century A D Other portable antiquities besides those already mentioned included terracotta figures of Yakshi frag ments of begging bowls etc

Similarly the mound excavated at Nalasar in Sambhar by Col Hendley in 1884 brought to light a number of portable objects like those of beads of different types, *fragments of a* steatite box, several terracotta figures clay seals, vessels balls etc One of these objects is a *pottery sealing* with one large and six smaller facets, each representing a *sacrificial post* surrounded by a railing and inscribed with the name of a certain Indra Sarman in early *Brahmi character*

The yields were formerly considered to be *Buddhist in type* but were subsequently examined further by Mr Dayaram Sahni, who disagreed with the above views and ascribed to the

site one of the old principal cities of the Chauhanas (Chahamanas). A few mounds lying in the vicinity are expected to yield some more interesting material if they are explored and excavated. Some brick structure appear to lie buried under the debris and overlooks those already excavated.

The portable antiquities of Rairh are mostly coins, iron tools and implements, which definitely prove that the site is an ancient one and must have been in occupation of the Malava tribe from about the 3rd century B C till the 2nd century A D. Close by it has been unearthed Malava Nagar which presented to our view in its finds a Malava mint and a number of portable objects like an elegant tablet of fine white clay representing God Indra on Airavat elephant, a human head of a beautiful terracotta, a few postsherds bearing names in the Gupta character and many such small antiquities ranging from the 4th century to the 9th century A D. A few mounds in the vicinity are expected to yield more informative material, if they are explored and excavated.

Of the other sites that lie buried under the debris and which are excepted to add much to our knowledge are Barnala, a village in Jaipur (from the tank of which two yupa pillars with Brahmi inscription have been discovored), the Bundhanali Dungri near the village of Moroli in the Sikrai Tahsil of Jaipur where a hoard of Gupta coins have been found and which does not seem to have been visited by any archaeologist so far, the Harshanath hill at Sikar where some beautiful sculptures and inscription [illegible] the 10th century A D have been found, the [illegible] Chatsu where a number of beautiful images, [illegible] (Vishnu) and a couple of Jaina staff have [illegible] mounds at Amber, where remnants of [illegible] are still to be seen, at Bhalpur, where remnants [illegible] culture have been found, the mounds at [illegible] which is supposed to be the Abhayanagri of [illegible] and which has yielded some beautiful sculptures [illegible] ants of Gupta and post-Gupta cultures, the Madhya- [illegible] and Ahar in Mewar, the Lasa and Rampur in

Tonk, the Jhalrapatan and Gangadhar in Jhalawar, Bhinmal, Jalor, Nagore, Pokharan and Mandor in Jodhpur, Dara in Mukundara pass, Shergadh, Charcharchaumnah, Badwa and Vilas in Kotah, Achalgarh in Sirohi, Telavara and Kalingara in Banswara, Roopnagar in Kishangarh and Kolayat and Hanumangarh in Bikaner

The above list of ancient sites is in no way complete for a host of other places remain to be listed and conserved so as to save them from the destructive onslaughts of nature and of a population which tends to remove the vestiges of old settlements by irrigation and by removal of stones, bricks and earth for building and agricultural purposes

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UNIVERSITY OF RAJPUTANA

By Shri M M Varma

For many years, public spirited people in Rajputana had been aspiring to have a University for Rajputana

First, the colleges as well as the high schools of Rajputana used to be affiliated to the then University of Allahabad Later, after the Allahabad University became a purely teaching University, the high schools and intermediate colleges remained affiliated to the Board of High School and Intermediate Education, United Provinces, while the degree colleges were affiliated to the University of Agra

The Ajmer Board

Shortly afterwards, however, in 1929 a Board of High School and Intermediate Education was established at Ajmer for Rajputana (including Ajmer Merwara) cum – Central India and Gwalior, under the auspices of the Government of India, and the high school and intermediate colleges were switched on from the U P to this Board, whereas the degree colleges remained affiliated to Agra University At this time, Rajputana had no professional colleges, only a few degree and intermediate colleges and a modest number of high schools as compared to its area

The Ajmer Board, whatever its shortcomings, did considerable service in creating educational consciousness among the teachers as well as the public of Rajputana, and for the first time the teachers of Rajputana had a direct voice in managing educational affairs. In the University of Agra, too, they secured substantial representation

Rajputana University

With the expansion of education and the growth of educational consciousness the authorities and members of the Ajmer Board felt the need for raising the Board to a University, for the areas served by it, and in 1941 the Board initiated a move

in this direction Lord Linlithgow, however, directed that the question should be taken up after the end of the war After the end of the war, the Government of India got absorbed in political and economic problems, and there was a stalemate

On the other hand, Sir Mirza Ismail, the notable Prime Minister of Jaipur, had also started a grand, vigorous move to establish a University for the States of Rajputana at Jaipur

Subsequently, the political face of India showed clear signs of an imminent change, and Sir V T Krishnamachari, the new Prime Minister of Jaipur, gave a final shape and a strong lead to the scheme initiated by Sir Mirza and succeeded in securing the consent of all the Darbars of Rajputana, and the University of Rajputana Act was promulgated in January 1947, and the University started working at Jaipur from July, 1947 in full order

The Jaipur Darbar since presented a spacious plot of 200 acres in Gandhi Nagar, in beautiful surroundings at Jaipur, for the University to have its own buildings—including the Senate Hall and the University Library—and endowed a sum of Rs 20 lakhs for their construction

In February 1949, the foundationstone of the new buildings, worthy of the University, was laid by the then Governor-General of India His Excellency Shri C Rajagopalachari It was most significant that the joint action of the States which gave birth to the Rajputana University was conceived at a time when fissiparous tendencies were uppermost, and as Sir V T Krishnamachari the Pro Chancellor, observed, it was most appropriate "that the formation of the University should have constituted the first step in the process that has now culminated in the United State of Rajasthan

Today, the University comprises within its jurisdiction a Medical College , a Mechanical and Electrical Engineering College, an Agricultural College, Two Teachers' Training Colleges, a full fledged Law College, 12 degree colleges (8 of which having post graduate departments) comprising the

epartments of Arts, Science and Commerce as well as Law (hese in the of the colleges, 13 intermediate colleges and 174 high schools

A college for Civil Engineering is in the offing The professional colleges Medical, Mechanical Engineering Civil Engineering, Agricultural etc, would be a blessing to Rajasthan which had no such facilities before

The degrees and examinations of the University have been recognised by the Union Public Service Commission as well as by all the other Universities of India

Activities of the University

Among the other activities of the University are the National Cadet Corps with a strength of seven companies University Extension Lectures Publication Board, Research Board a Chair of Economics and Chairs of Philosophy and Geology etc A beginning has been made of the University Library which however is for the present starved for want of its own building which it is hoped Government would not be slow in helping to materialise.

The University is wide awake to its new responsibilities and opportunities in the service of Rajasthan and has already taken steps towards matters like re organisation of post graduate studies and promotion of post graduate facilities for research revision of high school courses on the lines recommended by the Central Advisory Board of Education (including vocational subjects) progressive extension of Hindi medium etc

Philanthropic Educational Centres

One of the most hopeful signs of the great future before the University is the public awakening visible in the way of non official constructive educational activity in Rajasthan It is such awakened public opinion and constructive impulses of the people that will go a long way in feeding the University for all that it needs. ... people teachers and students out to work together in the pursuit of knowledge there are the focal

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On the other hand, Sir Mirza Ismail, the notable Prime Minister of Jaipur, had also started a grand, vigorous move to establish a University for the States of Rajputana at Jaipur

Subsequently, the political face of India showed clear signs of an imminent change, and Sir V T Krishnamachari, the new Prime Minister of Jaipur, gave a final shape and a strong lead to the scheme initiated by Sir Mirza and succeeded in securing the consent of all the Darbars of Rajputana, and the University of Rajputana Act was promulgated in January 1947, and the University started working at Jaipur from July, 1947 in full order

The Jaipur Darbar since presented a spacious plot of 200 acres in Gandhi Nagar, in beautiful surroundings at Jaipur, for the University to have its own buildings—including the Senate Hall and the University Library—and endowed a sum of Rs 20 lakhs for their construction

In February 1949, the foundationstone of the new buildings, worthy of the University, was laid by the then Governor-General of India His Excellency Shri C Rajagopalachari *It was most significant that the joint action of the States which* gave birth to the Rajputana University was conceived at a time when fissiparous tendencies were uppermost, and as Sir V T Krishnamachari the Pro Chancellor, observed, it was most appropriate "that the formation of the University should have constituted the first step in the process that has now culminated in the United State of Rajasthan

Today, the University comprises within its jurisdiction a Medical College, a Mechanical and Electrical Engineering College, an Agricultural College, Two Teachers Training Colleges, a full fledged Law College, 12 degree colleges (8 of which having post graduate departments) comprising the

Banasthali Vidyapeeth

Banasthali Vidyapeeth, which owes its origin to the creative genius of Pandit Hira Lal Shastri is doing valuable work for the education of girls and is experimenting a new synthesis of ancient Indian ideals of women s education with the modern demands on Indian womanhood which will be watched with interest by the country The programme of education at this Institute, in addition to literary education, includes moral education, physical training (including various games and sports and riding), practical domestic science and manual work, fine arts etc The Vidyapeeth also prepares girls for the examinations of the University, from the high school up to the post graduate standard. It is fortunate to have a band of patriotic workers headed by the devoted lady, Shri Ratan Shastri, wife of Pandit Hira Lal Shastri Mother' of the Vidyapeeth

The above, perhaps, is not an unhopeful tale of what has been achieved by way of structure and consolidation But with the emergence of New India, synchronising with the groping by humanity for a New Age the long range calls made on the universities are so great and wide that all past achievements must seem prosaic

Sanctuaries of Nation's Inner Life

As the University Education Commission, presided over by Dr S Radhakrishnan, have observed in their recent report

> He indeed must be blind who does not see that, mighty as are the political changes far deeper are the fundamental questions which will be decided by what happens in the universities Everything is being brought to the test of reason venerable theologies ancient political institutions time honoured social arrangements a thousand things which a generation ago looked as fixed as the hills If India is to confront the confusion of our time she must turn for guidance not to those who are lost in the mere exigencies of the passing hour but to her men of letters and men of science to her poets and artists to her discoverers

lights of a University. The University is proud of philanthropic educational activity; and it would not be out of place to recount some of these which deserve special mention.

The Vidya Bhawan Society at Udaipur

The Vidya Bhawan Society at Udaipur which owes its origin to the public spirit of Dr. Mohan Sinha Mehta, now comprises an ideal high school (with Nursery Section) and a full-fledged Teachers' Training College – both having creative educationists as their heads; and both affiliated to the University of Rajputana. It also runs a Handicrafts Institute (which should in due course go to provide Handicrafts teachers to the educational institutions of Rajasthan) and a 'Basic School' on the lines of the 'Wardha Scheme' of Education. The Vidya Bhawan Teachers' College bids fair to form the nucleus of the Faculty of Education of the University. The educational institutions of Vidya Bhawan are conducted on the most progressive lines, and have to their credit several special features.

Birla Educational Trust

The Birla Educational Trust, Pilani (Jaipur) is one of the largest Educational Trusts in India. It owes its origin and development to the generous munificence of the Birlas. Its activities cover a very wide range. The 'Educational Colony' at Pilani is a veritable oasis in the desert comprising a first rate Mechanical and Electrical Engineering College, a post-graduate college of Arts, Science and Commerce as well as a high school and a high school for girls all affiliated to the Rajputana University; a Montessori School, a Central Library a net-work of primary schools for the rural areas; a dairy farm and other industrial projects. The "Shiva Ganga" Canal at Pilani is an example of the miracle that Shri G. D. Birla has sought to achieve in the thick of a desert to leave no amenity unprovided in this unique educational colony. The executive brain and virtual director of this activity of the Birlas is Shri Sukhdeo Pande, who is indeed an asset to the Birla Educational Trust.

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them enthusiastically took to enriching the various fields of the Sanskrita and Prakrita literatures. The names of Jaina-Vallabha Suri, Jinadatta Suri, and Jinachandra Suri who was a contemporary of Emperor Akbar deserve special mention. Of the later Jain writers the most important is Meghavijaya, the author of *Sapta-Sandhana Mahakavya* (1760) which simultaneously tells the life stories of seven persons. He was a versatile scholar and wrote on practically every subject. Some of his best-known works are *Santinathacharitra, Varsha-Prabodha* or *Meghavijaya, Chandraprabha Vyakaran, Devanandavhyudaya* and *Digvijaya-Mahakavya*

Of the royal authors the most outstanding names are those of Prahladana deva (1164-1209) who founded Prahladanapura, the modern Palanpur, and Maharana Kumbhakarna of Mewar. The latter wrote *Sangitaraja*, an encyclopaedic work on music and also a commentary on *Gita govinda* of Jayadeva

Maharaja Anupsingh of Bikaner and Maharaja Swai Jai Singh of Jaipur were great patrons of learning and a host of writers from far and wide found patronage in their courts. The former founded the famous palace library of Bikaner.

Rajasthani Literature

There are five main dialects in Rajasthan namely (1) Western Rajasthani or Marwari, (2) Northern Rajasthani or Mewati, (3) Eastern Rajasthani or Jaipuri, (4) Southern Rajasthani or Malwi, and (5) Bhili In addition to these we may also notice Banjari and Gujari

By far the most important of the Rajasthani dialects, whether we consider the size of the area in which it is spoken or the extent of literature it has produced, is Marwari Its home is Western Rajputana including the old States of Mewar, Marwar, Jaisalmer and Bikaner and the Shekhawati tract of the Jaipur State Jaipuri is spoken in the old States of Jaipur, Kotah, Bundi and Jhalawar. Mewati including Ahiri is spoken in Alwar and to the South and Southwest of Delhi The headquarters of Malwi are in Malwa round Indore but it

LITERATURE

by Shri Narottam Das Swami

The literary output of Rajasthan falls into two categories:-
(1) Sanskrita and Prakrita Literature,
and (2) Rajasthani Literature.

Sanskrita and Prakrita Literature

Sanskrita literature of Rajasthan was mostly written by the Jainas, the poets living under the patronage of royal courts, and persons connected with Tantrik and other religious practices. Prakrita literature is exclusively a creation of the Jain authors.

The most important name in the Sanskrita literature of Rajasthan is that of Magha (c. 700 a.c.) the well-known author of *Sisupala-Vadha*. Haribhadra Suri (c. 750) is the most important of the Jain writers. He was a Brahmana of Chittor and was converted to Jainism by the nun Yakini. According to a tradition he wrote 1444 works religious, philosophical and literary both in Sanskrita and Prakrita. *Samaraichcha-Katha*, a dharma-katha composed in Maharashtri Prakarita, justifies his reputation so uniformly upheld by successive generations of Jain authors. It is written in a racy, simple, fluent prose interspersed with verses in the Arya metre.

A little later(779) Udyotana Suri, perhaps one of the disciples of Hribhadra, composed mainly in Prakrita and partly in Apabhramsa his *Kuvalaya-mala* at Jalor. In 906 Siddharshi wrote his *Upamiti-bhava-prancha-katha*, a lengthy allegory on the world's worthlessness in the form of a dharma-katha.

Many of the Acharyas of the Jain *gachchas* especially the Kharatara gachcha, besides being reputed scholars and authors themselves, were a source of great impetus to literary activity, and hundreds of scholars connected with

other narrative poems continued to be written till the end of the Middle period Vinayachandra's Neminatha Chaupai (c. 1269) is a love poem of the *bara masi* type *Salibhadra phaga* of Jinapadma (c 1330) is a charming *ritu-kavya* Other interesting poems of this variety are *Neminatha Navarasa Phaga* of Somasundara (1428), and *Vasanta Vilasa* of an unknown author, belonging to the fifteenth century *Kusalalabha* wrote two romantic poems, *Dhola Maru Chaupai* and *Madhavanala Kamakandala Chaupai* in the middle of the sixteenth century He also composed a work on metres and rhetorics named *Pingala Siromani* Samaya Sundara (1580 1642) wrote about twenty longer works and a large number of smaller poems including *padas* His best work is *Sitaram-Chaupai* Jinasamudrasuri and Jinaharsa alias Jasaraja were voluminous writers whose works have enriched the Rajasthani literature Jasaraja's *duhas* on love and *sringara* are well-known Udairaja was another *duha* writer whose *duhas* became very popular

The Terapanthi sect of the Jainas has rendered valuable services to the Rajasthani literature Even today, when others have taken to Hindi, the Terapanthis preach and write in Rajasthani The most notable of the Terapanthi authors was Jita Mala whose rendering of the *Bhagawati Sutra* in Rajasthani *dhalas* (melodies) is the biggest Rajasthani work

Much credit goes to the Jainas for the safe keeping and preservation of the literature of Rajasthan, both Jaina and non Jaina Many important non Jaina works, unavailable elsewhere are to be found in the Jaina Bhandaras They also helped in preserving the floating literature of the province

Bardic Literature

The bardic literature is mostly heroic or historical in character The language, generally known as Dingala differs from the spoken language in the use of archaic words and forms

The bardic literature presents a picture of 'the struggles of a brave people for independence who sacrificed whatever...

extends over a wide tract. Bhili is spoken by the Bhil tribes of the Arravali Hills.

The old literature of Rajasthan has been written in three different styles–(i) the jaina, (ii) the bardic and (iii) the popular.

Jaina Literature

The Jaina literature is a continuation of the Prakrita and Apabhramsa literatures of the Jainas and is mostly religious in character. It is very extensive—larger in volume and more varied than the bardic literature. The Jaina Sadhus (monks) popularised their teachings by means of popular stories and they gave to Rajasthani an extensive fiction literature, both prose and poetry, which incidentally throws a great light on the contemporary social and cultural history of the province.

The Jaina literature is found in various forms such as prabandha, katha, *rasa*, *rasau*, *chaupai*, *bhasa*, *phaga*, *barahamaso*, *chau-maso*, *samvada*, *gita*, *dhamala*, *duha*, *gajala*, *matrika*, *satawana*, *sajjhaya*; and *pattavali*. The first group is made of narrative poems of fairly good length. The *rasa* was originally a poem that could be sung with a *rasa* dance. Later it came to mean a long composition giving a sustained narrative generally in the old Apabhramsa metres and sometimes in *desi* melodies. The *Rasau* (Skt. *Rasaka*), another form of the word, came to mean a poem describing a battle with *vira*, or *vira* and *sringara*, as its prominent sentiments. The second group forms of *ritu-kavya* (season poetry). The *phaga* described the glories of spring, the lovers and their dances, and gives a glimpse of the joyous and free society of the age. The gajala is generally a poem connected with some city which is described in it.

Oldest Rajasthani Work

Bharateshwara-Bahubali-Ghora is the oldest known work of Rajasthani. It is a small poem of 46 stanzas and was written by Vajrasena Suri, a disciple of Devasuri presumably of the Nagapuriya Tapagachchha Shalibhadra Suri is the first important writer of Rajasthani. He wrote his *Bharata Bahubali Rasa* in desi melodies in 1189. Similar *rasas* and

protagonists of this prodigious conquest file off before our eyes, one after another, shrouded in their arms, we can still see the fire of their eyes and hear the cry with which they breathe life through the immortal verses of the bard and react the story of their lives, a story of battles The language of the poem flows, nay rushes on, with great vigour and martial fervour The flow, the simplicity and the chasteness of the style is unique

Baratha Isaradasa is considered the best of the bardic poets His best known works are *Harirasa, Deviyana* and *Hala Jhala ra Kundaliya* *Harirasa* has attained the sanctity of a *stotra* and many persons recite it daily like *Gita* or *Sahasranama* *Deviyana* deals with the exploits of Devi The *Kundaliya* is one of the best Rajasthani poems of *virarasa* Besides, he wrote a large number of bardic songs and miscellaneous poems

Prithiraja Rathoda is the most renowned of Rajasthani poets He belonged to the royal family of Bikaner and lived at the court of Akbar He was a great soldier and also a *bhakta* (devotee) His valour won him the big jagir of Gagrongarh Nabhoji s *Bhaktamala* has a *kavitta* on him Though chance made him serve Akbar he was very proud of the honour of his race and his country He was a great admirer of Maharana Pratap, Akbar s famous adversary, in whose praise he wrote a number of *duhas* and *gitas* It is said that when the Maharana was about to negotiate a treaty of surrender with the Emperor Prithiraja saved the situation by his famous letter Prithiraja s best known work is *Krisana Rukamani ri Veli* narrating the marriage of Rukmini with Krishna The latter half of the poem describes the six seasons, the vasanta (spring) being given a very prominent position Dr Tessitori has called *Veli* the most fulgent gem in the rich mine of the Rajasthani literature In his words ' this little poem by Prithiraja is one of the most perfect productions of the Dingala literature, a marvel of poetical ingenuity in which, like in the Taj of Agra, elaborateness of detail is combined with simplicity of conception and exquisiteness of feeling is glorified

dear to them and sturdily defended to death, inspite of every temptation, their rights and their national liberty – a picture which is difficult to contemplate without emotion'

'This vast literature, which was nothing but a message of brave life and a brave stormy death, flourished all over Rajasthana and Gujarata wherever Rajput was lavish of his blood to the soil of his conquest Foaming streams of infallible energy and indomitable iron courage had flown in it which made the Rajput warrior forget all his personal comforts and attachments in fight for what was good, true and beautiful'

Most of this literature is the contribution of the charanas, who handled swords with the same skill as they handled pens and who not only attended the battlefields with their patrons but often themselves took part in the fight

The popular literature was meant for the people and followed the spoken language of the time The *bhakti* literature may also be included in this style

Narapati Nalha, who calls himself a Vyasa, wrote in 1215 his *Visalade Rasau*, a quasi-historical poem written in the colloquial language of the time *Kanhada de Prabandha* by Padmanabha, a brahmana, describes the heroic deeds of Kanhad de, the Chauhan prince of Jalor It is a historical poem of great importance *Viramayana* by Bahadara a *dhadhi*, *Ranamalla chhanda* by Sridhara, a brahmana, and *Achaladasa Khichi ri Vachanika* by Sivadasa, a charana, may be said to be the precursors of the bardic style About the year 1535 Vithu Sujo Nagarajota composed Rau *Jaitasirau Chhanda*, one of the brightest jewel in the diadem Rajasthani. The subject of the poem is the defeat of the army of Kamran, the brother of Humayun, by Rau Jaitasi of Bikaner. The introductory part gives a brief review of the exploits of Rau Jaitasi's ancestors The rapid succession in which the salient events are mentioned and described gives the verses a movement which appears varied and pleasant Then follows the story of an amazingly rapid conquest on the part of a vigorous race, the Mughals that they were Then as the poet describes the

verse interspersed here and there. His other important work written in Rajasthani is *Vira Satasai* containing seven hundred *duhas* of *vira rasa*, a poem of great merit

Besides these larger poems there is a vast literature of miscellaneous short poems written in various metres such as *kavittas, jhulanas* and *duhas*, and *gitas* The *duhas* and the *gitas* are specially important Many thousands of them are found scattered here and there The *duhas* known after the names of Rajiyo, Bhairiyo, Jetuawo, Nagaji etc , are deservedly popular among the people of Rajasthan

Popular Literature

Of the popular literature the most notable work is *Dhola-Maru ra Duha*, which is a beautiful love poem In it the note of love sounds true and intense in its appeal as in no other poem of the age Respect for the plighted word, affection, humour, pathos, voluptuousness, laughter, love and the joy of re union all are found in it' The *duhas* became extremely popular among the people and many later authors retold the story in verse and in prose incorporating the *duhas* within the framework

The tale of *Sadayavachchha and Sawalinga* greatly fascinated the general public and a number of writers tried their hand at it Another tale which was similarly retold many times was that of Madhavanala and Kamakandala *Madhavanala dogdhak Prabandha* of Ganapati, a Kayastha, written in 1528 is probably the earliest and the best.

These stories, unlike dharmakathas, were not allegorical nor did the didactic element in them subordinate the human They were romances pure and simple They portrayed a free society unknown to this period A prominent feature which was made use in these stories is the *prahelika* or riddle

Popular imagination was highly exercised by King Vikramaditya and it produced a number of tales depicting his undaunted heroism, courage, generosity and greatness The tales of *Panchatantra* were also retold in various forms.

in immaculateness of form'. The *Veli* became immensely popular and received the status of a *dharma-grantha*. It has the unique distinction of having commentaries written on it, of which more than a dozen have come to light. Two of them are in Sanskrita.

Madhodasa told the story of the *Ramayana* in his *Rama-Raso*. Jhulo Saniyo wrote *Rukamani-Harana* and *Nagadamana*. Adho Duraso one of the most well-known of the Charana poets, composed *Virada Chhihattari* in praise of Maharana Pratapa.

Adho Kisano was the author of *Mahadeva Parvati-ri-Veli*, a poem of considerable importance. Khiriyo Jago's *Ratna Mahesadasota-ri-Vachanika* is the best specimen of the *Vachanika* form. Karanidana's *Suraja Prakasha* and Virabhana's *Raja Rupaka* are two epics of considerable length. Kripa Dana wrote the *Duhas of Rajiya* which are so popular in Rajasthana. Manasa Rama Sevaga wrote *Raghunatha-Rupaka* a work on Rajasthani *alankaras*, metres and *gitas*, also narrating the story of the *Ramayana* at the same time. Kaviya Ramanatha's *Draupadi-Karuna-Battisi* is a short poem of outstanding merit. Adho Opo wrote *gitas* and *Kavittas* of *bhakti* and *vairagya* and was a writer of great force

The two most important writers of the late middle period are Asiyo Vankidasa of Jodhpur and Misana Surya Malla of Bundi. Vankidasa was a great scholar and a historian besides being a first rate poet. He was intensely grieved to see the princes of Rajasthana quietly submit to the British suzerainty without any resistance whatsoever, and he took them to task in his poetry.

Suryamalla was perhaps the greatest scholar that the Charana community has produced He was a master of many languages. His *Vansabhaskara* is an encylopædia of information. It is a big poem of more than two thousand pages and deals with the history of the Chuhans of Bundi. It is written in Pingala with long pieces of Rajasthani prose and

Siddhas the most popular among whom are Pabuji, Ramadevaji Gogoji, Jambhoji and Tejoji They are worshipped as local gods and their stone images are to be seen every where in the villages of Rajasthan The *Pavadas* of Pabuji, sung by his worshippers, are a piece of high class poetry

History of Rajasthani

The earliest Rajasthani prose was from the pen of the Jainas Sangrama Sinha s Balasiksha (1280) and Kulamandana s Mughavabodha Auktika (C 1393) are text books of Sanskrita grammar with explanations in old Rajasthani Many such Auktikas written subsequently are extant The Jaina Sadhus wrote prose dharma kathas to popularise their teachings and a large number of them are available The prose which they used was highly developed, racy and expressive Tarunaprabha (1355) is the earliest known writer of such kathas Soma Sundara (1373 1442) and Parswachandra are two other notable authors

But a much more artistic piece of prose dharmakatha is *Prithwichandra charita alias Vagvilasa* by Manikyachandra The story is exceedingly well told The language is more elaborate and more musical The sentences are constructed with a sure eye to rhetoric and balance and at places attain poetic cadence The sentences are generally broken up into clauses the last words of which rhyme

Such rhyming prose was known by the name of *Vachanika* in the bardic literature The bardic *vachanikas* are generally like the *champu kavyas* of Sanskrita and have prose interspersed with poetry The earliest known *vachanika* is Sivadasa s Khichi *Achaladasa ri-Vachanika* celebrating the heroic fight and death of Achaladasa the Rajput prince of Gogrongarh It was composed sometime in the earlier half of the fifteenth century

The prose chronicles form the historical and the semi historical prose literature They include chronicles proper genealogies biographies legendary accounts, historical tales and romances and similar writings These chronicles are very

Two other poems very popular with the masses of Rajasthana and written by members of the so called lower classes of the Hindu Society were *Harajı-ro-Vivahalo* or *Rukamani Mangala* and *Narasıjı-ro Mahero* They are generally recited by professional reciters in the night time when the people of both sexes gather together after their household wrok is over. The *Vivahalo* narrates the story of the marriage of Rukmini with Krishna. It was composed by Padam, an oil-presser The *Mahero* was composed by Ratano, a carpenter and tells how Krishna helped Narasi to celebrate the *Mahero* of his daughter, *Nanhi Bai* It is a beautiful small poem in which pathos and humour are exquisitely blended together

The *Khyalas* make another type of popular poetry which greatly degenerated subsequently. *Jina Mata-ro-Gita* and *Dungaji Jawaraji-ro-Gita* are two very popular ballads which may vie with the best poetry of any language

Rajasthana has been a fertile ground for the various religious sects A number of popular sects appeared in the middle period. The compositions of the *Santas* and *bhaktas* of these sects were known as *Vanis*, a large number of which are extant The most important of the *bhakta* poets is Miran Bai, the greatest woman-poet of North India She was a great grand daughter of Rawa Jodhaji founder of Jodhpur and was married to Kanwara Bhojaraja son of the famous Rana Sanga Rathoda Jaimala of the Chittor fame was a cousin of hers Widowed soon after her marriage she forgot the world in the worship of Lord Krishna Her most important writings are her *padas* which gained extreme popularity not only in Rajasthan and Gujrat but throughout the length and breadth of the country, including the far off Bengal and Madras Passion grace delicacy, and melody—Miran has all these gifts Her language is simple 'Her poetical skill possesses the supreme art of being artless'. Chandro Sakhi's *padas* vie with those of Miran in popularity Bakhtawar is another *bhakta* poet of the type

The lower strata of the society of Rajasthan especially the village-folk, have greatly been under the influence of the

Khichi Gangeva Nimbawata ro Dopaharo is an artistic ..e story of the type of Mambyasuri's *Prithvichandra* *arita* *Rajana Rawat ro Vata Vanaua* of an unknown thor is a beautiful composition in which set descriptions, nerally used by the professional story tellers of Rajasthan, ve been cleverly strung together to form a continuous story

Rajasthani Literature in Modern era

The modern period of Rajasthani literature begins with e contact of the West and the national awakening of the untry Rajasthani, however, got a heavy setback in this riod With the coming of the British suzerainty the States Rajasthan were flooded with outside officials and Urdu was ade the court language in place of Rajasthani Similarly when *w schools* were opened Rajasthani had to give way to Hindi nthusiastic lovers of the mother tongue however, raised their ice for Rajasthani and though they got scanty support they rried on their work indefatigably Their efforts gave a new petus to the creation of the Rajasthani literature The ost prominent of them are Pandit Ram Karan Asopa, Seth vachandra Bharatiya Seth Gulab Chand Nagori, Pandit uryal aran Pareek Thakur Ram Singh and Pandit Jaya larayan Vyas Ram Karan Asopa was a great scholar He rote a grammar of Rajsthani on modern lines, a series of tajasthani Readers and a big dictionary (the last being still npublished) Bharatiya was an artist and he produced riginal literature dramas, novels and poetry Rajasthani Sahitya Pith of Bikaner is the premier society which has been vorking for the cause of the uplift of the Rajasthani language and literature

Poetry

Baratha Kesari Singh Sauda was the pioneer of the new national awakening in the Rajasthani poetry He was a great force in Rajasthan His Jagir was confiscated for his political and revolutionary activities His son Pratap Singh, the beloved Pratap of the Rajasthani youth was jailed and died

valuable for the history of India of the medieval and the early modern periods. In the words of Sir Ashutosh Mukerji 'they are real and actual chronicles with no other aim in view than a faithful record of facts and their revelation is destined to destroy for ever the unjust blame that India never possessed a historical genius.' The history of medieval India has been so far compiled chiefly from the works of Muhammadan historians who never do full justice to the Hindu princes and generals. These chronicles enable us to see the other side of the picture.

The most important of these chronicles are the *Khyata* and the *Vata* The *vata* (Skt. *Varta*) is generally a story short or long while the *khyata* (Skt. *Khyati*) is a continuous chronicle or a collection of the *vatas*. The most important *khyata* writers are Nainasi Muhnota, Vankidasa Asiyo, and Dayaladasa Sindhayacha. Nainasi was a Jaina and a minister of Maharaja Jaswant Singh of Jodhpur. He has been called the Abul Fazl of Rajasthan. His Khyata gives the history of the various Rajput clans ruling in Rajasthan He also wrote a gazetteer of the Jodhpur State Nainasi's Khyata is a master piece of Rajasthani prose Vankidasa's khyata is a collection of stray notes of very great historical value Dayaladasa wrote three big histories of the Bikaner State

Dalapata Vilasa, a unique work in Rajasthani, is a detailed biography of Prince Dalapata Simha, the son and successor of Maharaja Raya Simha of Bikaner Unfortunately the work is incomplete.

Besides the historical and semi historical *vatas*, hundreds of popular *vatas* were also written, they are of all kinds—religious, didactic, humorous, of love, of romance, of adventure and so on. A few important names may be given—the Boar named Ekalagida, Chauboli, Raja Bhoja and Khaphro, the thief; Raja Bhoja, Panaita Magha and the Old Woman, Jasama Odani; Phopananda, Sayani Charani, Chandana and Malayagari; Khudaya Bawali (the mad Khuda), Palaka Dariyawa; Prince Kutubdi.

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Of other important poets the names of Moti Singh, Durga-datta Shastri, Munnalal Prohit and Meghraj Varma 'Mukul' may be mentioned. Mukula's Samani (token) has made wide appeal.

Prose

The first important dramatist of Rajasthani is Shiv Chandra Bharatiya He wrote three dramas named Kesara vilasa, Budhapa-ki Sagai, and Phataka Janjala. Bhagawati Prasad Daruka wrote five short dramas which were published together under the title of *Marwadi Pancha Nataka*. *Kalakatiya Babu* is the best of them All these plays aim at the social reform by exposing the harmful customs and traditions of Rajasthani society eating at its very roots, and are realistic in character *Volawana* (Safe conduct) a short play by Surya Karan Pareek has Rajput chivalry for its theme. Srinath Modi's Goma Jata (Goma, the Jat) is a small play ealing with rural problems Muralidhar Vyas has written several one act plays.

Fiction has been a weak point of modern Rajasthani literature Shiva Chandra Bharatiya's Kanaka-Sundara (Kanaka and Sundara) is a beautiful short novel of which only the first part was published It tells the story of how a poor Marwari Seth by the sheer dint of hard work, honesty, uprightness and resourcefulness rose to be a multi-millionaire. Muralidhar Vyas has written a number of short stories mostly social and domestic Munna Lal Purohit has also written a few stories dealing with Rajasthani chivalry.

Among prose writers the names of Gulab Chand Nagori, Agar Chand Nahta Bhanwarlal Nahta and Chandra Singh may be mentioned Bhanwar Lal Nahta's *Labhu Babo* (Uncle Labhu) is a really beautiful pen sketch Thakur Ram Singh's presidential address is a good piece of Rajasthani prose Of the translations Ram Karan Asopa's rendering of *Bhagwad Gita* deserves mention

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Among the editors the names of Thakur Bhur Sing (*Vividha Sangraha* and *Maharana Yasha Prakasha*), Mun Devi Prasad (*Raja rasanamrita, Mahila mridu-vani, Kavi ratnavali*), Purohit Hari Narayan (Sundara Granthavali Rama Karan Asopa (*Vansa bhaskara, Nainasiri Khyata* etc Dr Dasarath Sharma (*Dayaladasa ri Khyata*), Agarchai Nahta (*Aitihasika Jaina Kavya Sitarama Chaupai* etc Dinanath Khatri (*Dayaladasa ri Khyata* and *Dalapa Vilasa*), Kanhaiyalal Sahal and Isar Dan (*Vira Satasai*) ar Narottama Dasa Swami (Rajasthana ra Duha, *Rajasthana r Lokagita* 10 parts, *Jab jira Pawada Mirabai ra Pad Prithwicha dra Charitra Vachida ari Khyata, Rajstha Vira-gita Achala Das Ri Vachanika*, etc) may be mentione The most outstanding names, however, are those of Thak Ram Singh and Surya Karan Pareek (Veli Krishna Rukman ri, Dhola Maru ra Duha etc)

The Rajasthani the Rajasthana Bharati, and the Sodl Patrika of Udaipur Visawa Vidyapith are the importa research Journals dealing with the Rajasthani language ar culture Many monthly and weekly periodicals were starte from time to time but none has survived

With the advent of Indian Independence, Rajasthan ha been formed into a compact province and it is hoped th Rajasthani will regain its old position and Rajasthani litera ture will attain new heights of glory